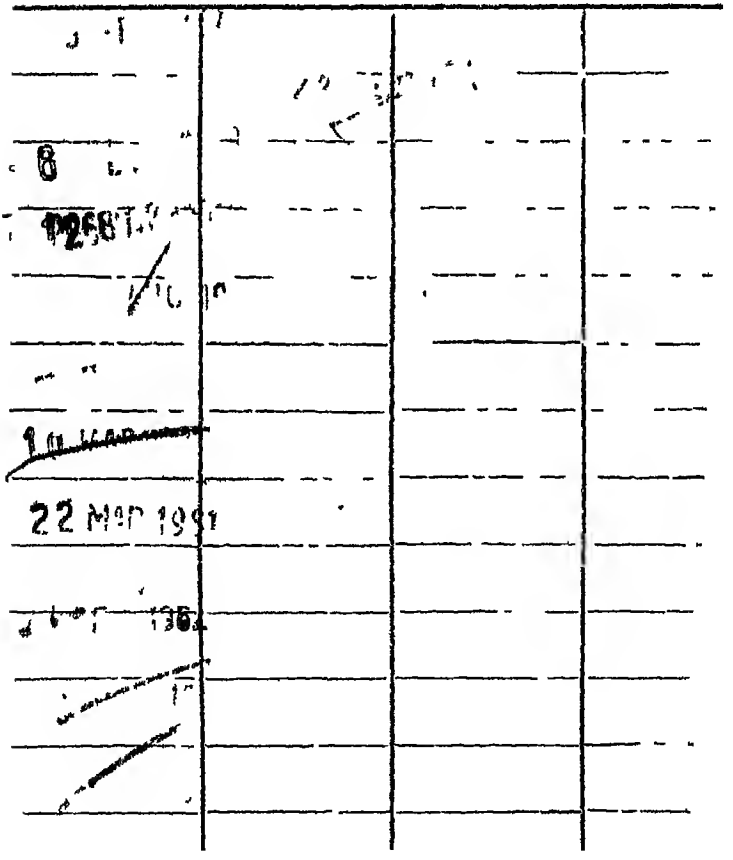

ADOLPH FERRIÈRE:

THE ACTIVITY SCHOOL

Edited by

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Dr. ADOLPH FERRIÈRE is professor of education in the Jean-Jacques Rousseau Institute at Geneva, Switzerland. He worked with Hermann Lietz in the Landerziehungsheime at Ilsenburg in the late '90's, and founded the Bureau International des Ecoles Nouvelles at Geneva in 1899. This bureau was later incorporated in the Ligue Internationale pour l'Education Nouvelle, which is the organization sponsoring the international conferences held at Calais in 1921, at Montreux in 1923, at Heidelberg in 1925, and at Locarno in 1927. Dr. Ferrière is editor of the French organ of the Ligue, Pour l'Ere Nouvelle. He is also adviser to the International School at Geneva, an experimental school conducted by the Ligue Internationale to exemplify the New Education practice. Dr. Ferrière is the author of several volumes, including *L'Ecole Active*, *La Loi du Progrès*, *Transformons l'Ecole*, and *Hermann Lietz: L'Ecole Nouvelle en Allemagne*. In addition he has contributed articles to such American periodicals as the *Pedagogical Seminary* and *Progressive Education*.

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EDITOR'S INTRODUCTION

Many years ago when I was spending a pleasant summer vacation at Geneva, the beautiful capital of Switzerland, I used to while away the afternoon leisure in the many bookshops with which its streets are dotted. In the course of one such expedition, I chanced on a volume entitled "L'Ecole Active" by Adolph Ferrière and two others on "La Pratique de L'Ecole Active" by the same author. I looked through the contents, felt interested and purchased the set of these volumes. That was how, almost by chance, I made my first acquaintance with Dr. Ferrière's works which, as I subsequently learnt, are considered to be of great value for the student of the New Education Movement and which are inspired by a happy combination of theoretical insight and practical experience.

It was, therefore, with great pleasure that ten years later, I accepted Dr. Ferrière's invitation to bring out an Indian edition of his book "L'Ecole Active." I agreed to do so readily because the psychological and educational principles underlying the Activity School Movement, which he has lucidly explained in the book, have a practically universal application and the study of this book should, in my opinion, prove of great benefit to Indian teachers at the present stage of our education when tentative, often groping, efforts are being made to reconstruct it on more rational lines. My task was greatly facilitated because the translators of its American Edition (F. Dean Moore and F. C. Wooton) and their publishers (The John Day Company, N. Y.) were good enough to permit me to make use of the

English text. I have, therefore, only contented myself with omitting from this edition such matter and illustrations as had either only local relevance or was of value at the time the book was first published. This omission—which represents but a small part of the book—would ensure that Indian readers will find the material actually included both interesting and significant.

The most significant feature in "L'Ecole Active," as Messrs. Moore and Wooton point out, is "the inspiration to encourage the spontaneous and creative nature of childhood..... A new social order can be reached only by utilizing the capacities of the present generation of childhood to the end that each child may best serve society by making the most of his own peculiar creative abilities." As one of the pioneers of the New Education Movement and as the Founder-President of the International Bureau of New Schools, Dr. Ferrière has been in the forefront of progressive educational theory and practice which aims at linking up knowledge with life, basing education on the child's instincts and innate tendencies, humanizing the school and transforming it into an active, social and free environment in which the child's real nature may be spontaneously released for self-realisation and social service. In a statement on "What is the Activity School," he explains what he considers to be the essential features of the Activity School. "The aim of the Activity School is to conserve and develop the useful and constructive energies of the individual with a view to mould him into an autonomous and responsible personality. Everything that is taught from without, devoid as it is of contact with internal energies, tends to disrupt the equilibrium of the human being and is, therefore, harmful to him. Anything that fosters the constructive energies is good..... The Activity School acts not on

the external symptoms of good or evil but on their deep inner sources..... It seeks to emphasize the spirit —that is to say, the heart, intuition, reason and will in their qualitative essence. The spirit takes control of the unconscious tendencies : this is called self-mastery. In this manner, the Activity School is conscious of conforming itself to modern science and of forming—as is proved by experience—balanced and harmonious personalities who, far from being egoistic possess the innate sense of solidarity and will accordingly become active and constructive workers for Justice and Peace in the world."

What about the significance of the Activity School Movement for India ? The ferments of thought in the field of education in other countries has brought about far reaching changes in their school systems and not only the external organization of education but its spirit, methods and contents have been greatly modified. This book gives an inkling into these changes and refers to many others in which more detailed accounts of new educational developments are to be found. India, on the other hand, has been left far behind and, with a few notable exceptions, continues the old, scholastic traditions of teaching which do not take into account the active and creative nature of the child and the forces which are reshaping the modern world. If education is to be anything more than the passive assimilation of mechanically imparted information, if it is to release the springs of the child's creative impulses and equip him for playing a dynamic part in the reconstruction of this world—these objectives are desirable—we must reorganize our education drastically. In this reconstruction, we shall respect the active and constructive nature of the child and make provision for its free and joyous expression ; we shall re-establish the intimate and fruitful relationship of the hand and the brain, of theory

and practice, of knowledge and activity ; we shall retrieve it from 'the unlovely individualism' in which it is at present encased and place the development of intellect and character alike in a social context; we shall enrich the curriculum and work of the school by introducing into its joyous activities and occupations and significant subject matter derived from life.

The education that we advocate—for India as for other countries—is one that will "create healthy interests of work and leisure—link up the life of the individual with great and worthy purposes which transcend his own ego and bring him into unison with the larger life of mankind ; it is an education which will banish fear as a normal attitude of mind and thus eradicate, so far as possible, the repressions and emotional conflicts which social coercion engenders ; it will be an education which, in close and well meaning co-operation with a harmonized industrial system, will train each individual for some line of work that is congenial to his nature and in which all his destructive powers will find full play and satisfaction."[1]

Such an education alone can produce the type of individual who will fulfil the obligations of creative citizenship and contribute to the enrichment of society without sacrificing his distinctive individuality. The noblest spirits—in the East as in the West—are striving for the supremacy of these ideals in the field of education and India, with her great cultural heritage of idealism, broad humanity, tolerance and the spirit of sacrifice can play a significant part in the shaping of such an education. It is the earnest wish of the Editor that the study of this work may stimulate the readers' interest in this cause and lead the teachers to a more strenuous effort in behalf of such an educational renaissance.

[1] Saiyidain : *The School of the Future.*

INTRODUCTION

The term "Ecole active" (Activity School), unknown in 1918, has been in common use since 1920. Few terms have had a similar fate: it serves as a banner; it has its enthusiastic partisans—its detractors also, as might be expected. But these latter have not had much weight; for who is going to oppose what has the support of science, of progress, of the future?

The first to use this term was, I think, my learned colleague and friend, M. Pierre Bovet, Director of the J.-J. Rousseau Institute and Professor at the University of Geneva. In 1914, when I published the little study which, greatly augmented, served as the basis of the present work, I still used the old term "Work School" (*Ecole du travail*), translated from the German *Arbeitsschule*. But even then I had felt its inadequacy. Besides, is the German term the more accurate? I doubt it.

"The term Work School," I wrote in 1914, "may appear vague. It says too much and too little: too much, because it does not apply to all the schools where one works, especially to the vocational schools and to the manual training schools. The term means too little, for, as we shall see, there is work and work: mechanical work and productive work. It is in the second sense that it is to be understood here."

But I kept purposely in 1914 the expression used as title of my study. True work is a spontaneous, intelligent activity which operates from within outward. Even if the work to which we devote ourselves has not

been freely chosen, even if external force or circumstances make it necessary, it will not be work worthy of the name save in so far as we throw ourselves into it, our vision, our efforts, our feeling. He who has learned from earliest childhood to work, in the restricted but higher sense which I propose to give this word; in other words, he for whom the school of life has been the school of work, will know how to go far, straight ahead, whether it be in the field of disinterested speculation or in the less interesting and less disinterested field of economic speculation. He will have learned to guard against that empty verbalism, the product of an exaggerated intellectualism, which is the chief blot on the school of yesterday and to-day.

We are concerned, then, with a reaction against what remains of the medieval in the school of to-day; against its formalism, against its custom of making a place for itself on the margin of life, against its fundamental failure to comprehend what constitutes the basis and the essence of the nature of the child. The Activity School is not at all anti-intellectual but it is anti-intellectualistic, if one may so designate the opposition to this tendency to accord the intellect a preponderant place at the expense of feeling and activity. For these latter elements are an integral part of what we call character. One may define character as a bundle of habits built up from the child's reaction to his environment and determining in him all those values which are, for everyone, the essential capital of the "conduct of life." One's orientation before the great religious, philosophic, social, and moral problems of existence, one's choice of ends to be striven for and of means to be used to reach them, depend less on ideas learned than on habits formed. One must live as well as reflect. If life without reflection is little, reflection without life is nothing.

Does this mean that the Activity School is "*pragmatic*"? This term has been used and abused. It is pragmatic, if by that we mean that it seeks to subordinate means to ends, that it does not follow art for art's sake, culture for culture's sake, sport for sport's sake, Latin for the sake of snobbishness, classicism for the sake of patriotism. It is pragmatic, if to be pragmatic is to broaden and extend one's power of mind and to subordinate all other values of life to this end. But it is not pragmatic in the narrow meaning of the term. For the Activity School, economic activity will never outrank that of the mind, nor the activity of the hands that of the intelligence. Reason will not be made the servant of the will, and if disciplined and conscious activity are put above everything else, it is not forgotten that the highest form of action is the work of thought. Reason must not consent to serve the will save as the will is devoted entirely to the service of the mind.

Spontaneous, personal, productive activity; this is the ideal of the Activity School. It is by no means new. It is the ideal of Montaigne, of Locke, of J.-J. Rousseau. Pestalozzi, Fichte, Froebel, make it the center of their educational system. It is, in short, the ideal of all gifted intuitive teachers of the past, the forerunners. But the very thing which constitutes the strength of these forerunners—their intuition—was their chief weakness, as we realize when we contrast the diffuseness of their work with the progress of exact science. They divined childhood, but they did not know it, in the sense our scientific century gives the word. Before the time of experimental psychology, the best thing that could be done was to prophesy; to-day we know, to-morrow we shall know still better. And what do we know now? That the child grows like a little plant, in accordance with the laws of his own nature; that he truly possesses only what he has

assimilated by an individual work of absorption. A tree will receive no benefit whatever if we stir up a chemical fertilizer into a paste and brush it over the trunk. Unless the bark can break through this coat, the tree will die. Too often the traditional school does just this sort of thing. It must learn to place the fertilizer around the base of the plant, so that the rain will carry it down to the roots; and then the work of assimilation will go on slowly and surely, and the tree will bring forth its most beautiful blossoms and fruits.

The intuition of the great teachers of the past has been broadened and enriched by the psychological study of the child's mind and the laws of its growth. What was subconscious has become conscious—an order of development which we find equally in the individual. Now is this not the very antithesis of the educational formula proposed by M. Gustave le Bon: to make the conscious pass into the unconscious?[1]

This brings me to another characteristic of the Activity School. It is very well to speak of making the conscious pass into the unconscious so long as we are dealing with the acquisition of mechanical knowledge. But, when all is said and done, that is a formula for training an animal, not for educating a child. It must be used, at the outset, in acquiring some sort of technique in any calling, even in intellectual pursuits. It would be absurd to repeat extravagantly all mankind's past experiences. On the other hand, in order to work toward any end whatever one must have means, and these means, when a living organism, body or mind, is concerned, can be acquired only through repetition, habit, automatism, as first conditions of all progress. The conscious mind is not free, it is not ready for

[1] Le Bon has developed this thesis in his well-known book: "La Psychologie de l'Education" (The Psychology of Education).

more difficult tasks, it is not capable of approaching a more complex activity, until it has rid itself of earlier processes which have become fixed once for all in the organism. In this respect it is well, even essential, to make the conscious pass into the unconscious.

Is it always necessary thus to annihilate the conscious, to make the individual pass from a condition of live force to that of mechanical force, with his mind at most a sort of astral entity sunken in the limbos of Nirvana? Obviously not. This mechanical force would have all the means to act with, but it would have no end. Mechanical power has meaning only as the tool of creative power, and this creative power, as I wish to show here, cannot develop unless education is conceived as an unfolding, as expansion, a process in which, continuously and more and more profoundly, the conscious takes possession of the unconscious. Education thus becomes the art of making the unconscious pass into the conscious—the precise opposite of G. le Bon's formula.

For that is one of the most recent achievements of child psychology, and one of those which have the most far-reaching implications: it has been ascertained that the child from the beginning of his life on to maturity goes through a series of stages always fundamentally the same; and in so far as he follows the road nature prescribes, he will approach the highest degree of perfection it is possible for him to attain. Strictly speaking, the word "stage" is not quite accurate. It is not a matter of successive static stages, but of an immanent dynamism. As Henri Bergson has well shown, the mind, scarcely able to conceive continuous movement, loves to break it up into apparently discontinuous fragments. The interruptions, the changes of direction, the culminating points, are more readily perceived than what serves to connect them. It is, however, no less

true that life is a continuous growth, an urge, irregular no doubt in its intensity and its directions, but never at rest.

To understand this *élan vital*, to know its end, its means, is the great task of mankind, and the essential duty of the human mind. There is no higher task, for it involves philosophy and religion. Whether a man devotes himself to scientific work or to practical affairs, he cannot escape the problems life sets him. And that is the reason why, if education in the ends it pursues is the grand-daughter of philosophy, it is in the means it employs the daughter of biology in the broadest sense of that word; the science of the life of the body and the science of the life of the mind.

What then, it may be asked, is this Activity School which you locate without specifying exact boundaries? I shall not say what it is, for a most excellent reason: as it endeavors to realize above all else the expansion of all that is best in the real nature of the child—of every child—it can adopt no *a priori* definition, no *a priori* program, no *a priori* method. It is not, it is becoming. It will no longer be to-morrow what it was yesterday. It is in process of transformation. It is, as the mathematicians express it, a "function" of the child personalities which create it. To attempt to force it into a rigid frame would be to misunderstand what is essential in it. The principles which guide it are, as the electricians would say, dynamic and not static; they are currents, not masses. It is neither an unorganized chaos nor a rigid mechanism, but an organism, with all that this concept involves of order and of the unpredictable, of exactness in the general and of the undefinable in the particular.

In a word, the Activity School, for the first time in history, does justice to the child.

But another question arises: What is the child?

The child is, by definition, a being not yet capable of expressing thought, in whom the differentiation of the senses and of the mind, not less than their integration, is but slightly developed. The few ideas that the little child has acquired in his short experience are vague, indistinct; his power to react still lacks the coördination it will later acquire. But the child, as has often been said, is not an incomplete adult; he is, at every stage of development, a being *sui generis*, and methods good for the adult are bad for him. In many respects he is primitive, unevolved, of a kind with the savage, with, besides, a whole world of power still buried in the depths of his physical and mental organism which will rise to the surface when their time comes. Their incubation, if one may use this term, will be all the surer, their unfolding all the more normal, if the child's nervous equilibrium, his physical and moral calm, have been preserved. Now this equilibrium and this calm will be all the better safeguarded if, along with a healthy physical life—fresh air, sunlight, and proper hygiene—the child is enabled to live his life naturally, to follow his interests, to begin real life with the thousand and one actions and reactions life brings into play. The principle of natural sanctions, praised by Spencer, is essentially correct. But it must not be applied artificially; it must grow out of the child's life in an environment which has been made rich in a variety of activities.

There is no paradox in this other saying of the American psychologist, Stanley Hall: "To become a well-civilized man, one must first have been a good savage as a child." Our complicated life, we must all agree, ill lends itself to the realization of this ideal. Let us not add to the fault of circumstance this other fault, so easily avoided, of making the child live a life beyond his mental needs, beyond his grasp, and hence in every way pernicious. What I mean will be clear if we com-

pare the sort of life our pupils lead in nurseries and kindergartens with that of primitive man, or our first cave- and lake-dwelling ancestors, so far as we can picture it. One fact in particular stands out: our ancestors lived in the concrete, their thinking was in close touch with things, was fed on experience—experience obviously still poorly assimilated, poorly integrated, wholly empirical, in the etymological sense of the term. Their thinking rose out of a contact with things, and reacted narrowly in its turn upon things. The activity of these primitive men was all bodily, manual, practical. Spontaneous consciousness—that which animals, at grips with action, have—far preceded reflective consciousness, that which turns in upon itself and, cutting through the world of perceptions, builds up abstract ideas. It is well to make the child reflect, but upon this condition: that his reflection must grow immediately from the concrete, and must react immediately upon the concrete. *The separation of things and of ideas of things can but lead to the shipwreck of common sense.* To deprive the child of a contact with things is a crime against childhood. To conclude: children live in visible and tangible reality; their activity depends upon this reality, and their experience is nourished by it. It will be time enough for them to rise to abstractions when their minds are mature enough to do so. This time will come early for some, later for others; it little matters which, provided that this emancipation of thought, this progression from empirical thinking to rational thinking, occurs spontaneously. The step is too serious to be entrusted to any village schoolmaster whatever.

There is, indeed, room for astonishment at the lack of wisdom shown in current methods: it is averred that the child has in general a remarkable memory for concrete facts, but little capacity for handling abstract ideas. The adolescent, however, especially around the

thirteenth year, experiences an expansion of his reasoning power, of his faculty of reflection on things and on people, of coördination, of abstraction, of generalization. Now the school of to-day too often strives violently to stuff the young minds with verbal reasoning and abstractions far beyond their grasp, with the result that the adolescent has his intellectual growth stunted by the need of memorizing endless large doses of material given in the curriculum and demanded back in the examinations. It is a world turned upside down.

We must, then, see that the child lives in the concrete, that his reason awakens slowly through a constant contact with things, that he reacts ceaselessly on visible and tangible objects. His need for activity will thus find satisfaction. And this activity will carry with it the actions and reactions out of which grow the natural sanctions which alone form the mind and bring about progress. Hence the obvious conclusion to be drawn from what preceded is this: children must have an opportunity to work with their bodies and with their hands. This was the chief idea of the creators of the Activity School; it was the only idea of some of them. And it is likewise the origin of the misunderstanding which still continues—that the Activity School is exclusively a school for manual work, or—worse—a school which deliberately takes issue against the cultivation of the mind.

Nevertheless it remains true that, especially *for children of seven to twelve years of age, manual work must remain the cornerstone of education.* If this conforms to the child's ancestral needs, it will equally meet his psychological needs; his mind will proceed from the concrete to the abstract by slow stages, without the hasty and premature intervention of the reflective thinking of the adult.

Have I succeeded in these few introductory pages

in showing the very real importance of the reform which centers about the term "Activity School"? It is more than a reform, it is a transformation. A new spirit is abroad in the world; the old traditional school with its substructure of routine, its walls of prejudice, and its roof of social conformity, will not be able to resist it.

In its place will be constructed a vaster edifice, founded on scientific knowledge ripened by experience; and some day we shall perhaps see men who no longer hate the school of their childhood days, for in it they will have learned health of body, harmony of spirit, and enrichment of mind.

CHAPTER I

Some Precursors of the Activity School

We should have to go far back into history to find the origins of the Activity School, for its method is that of nature. The children of primitive men, like little savages to-day, practice "learning by doing." Again, it was always the educational method of the patriarchal family. But the cities of antiquity, so far as the children of the patricians were concerned, had already separated the school from life: gymnastics, the bearing of arms, verbalism—already!—came in to falsify the first education. It was in vain that a Socrates attempted to react against the sophists and the teachers. Despite the renown conferred on him by the writings of Plato and of Xenophon, despite his wreaths of laurel, he found almost no imitators. Not everyone possesses as he did the twofold gifts of intuition and clear thinking. Not everyone is a "midwife of souls."

The idea of bringing the school to life, of seeking to link the one with the other, does not seem even slightly to have occurred to the classical and medieval philosophers. It took the paradoxes of a Rabelais, the exact analysis of a Montaigne, the robust tenets of a Luther, to make man feel during the Renaissance that there might exist any conception or teaching other than that which ruled everywhere, and had ruled from time immemorial. John Locke, true Anglo-Saxon of his times, scarcely addressed himself to any but the leisured classes.

Let us pass on until we reach J.-J. Rousseau. He

was one of the first—perhaps the very first—to discern the true value of childhood. There are a thousand and one fascinating quotations to be made from the *Emile*.[1] Let us confine ourselves to those in which he shows himself to be the prophet and spokesman of the Activity School.

On the first page we read this important declaration:

"People lament the helplessness of childhood; they do not see that the race would have perished if man had not begun by being a child."

Elsewhere he affirms very clearly:

"Every age, every stage of life, has its own perfection, a kind of maturity suited to it. We have often heard of a grown man; let us consider a grown child: this will strike us as more novel, but it will not seem less pleasing."—"Nature wants children to be children before they become men. If we pervert this order, we shall produce precocious fruit that is neither ripe nor savory."—"Let nature act a long time before you attempt to act for her, lest you interfere with her operations... Nature has her own means of fortifying character and of making it grow, which must never be opposed."

Now what does nature demand? She demands that the child shall grow like a plant, and that it shall take all the time it needs:

"The greatest, the most important, the most useful rule in all education, is not to save time, but to lose it."—"Every age has its springs of action.....It is not I who make this choice arbitrarily, but nature herself who indicates it."—"The child has his own ways of seeing, of thinking and, of feeling; nothing could be

[1] The author has quoted extensively from *Emile* in the following pages and in view of Rousseau's epoch-making contribution to the theory and practice of the Activity School, I have left these quotations intact. (Editor).

more unreasonable than for us to substitute our own ways; and I would as soon ask a child to be five feet tall as to expect judgment of him at ten years of age."

"All ways have been tried but one, the only one which can succeed: well-regulated liberty."—"It is never constraint, but pleasure or desire which must produce this attention."—"Every mind has its own pattern, by which it must be governed; the success of one's efforts depends upon governing it by this pattern and no other."

Does this not reach the very heart of the Activity School?

It is in Book III of *Emile* that Jean-Jacques explains most clearly why teaching must be based on interest and action.

"Man's various powers are stirred by the same instinct," he writes. "The bodily activity which seeks an outlet is followed by the mental activity which seeks knowledge. Children are first restless, and then curious."

What will be the first "~~centers of~~ interest" to arise, in the language of modern psychology? They will be the primordial needs of man in nature.

"The innate desire for well-being and the impossibility of fully satisfying it make him seek constantly for new means of contributing to its satisfaction. Such is the first principle of curiosity; a principle natural to the human heart, though its growth is limited by the development of our feeling and our knowledge." "The earth is our island; and the most striking object we behold is the sun. As soon as we go beyond our immediate environment, our attention must hit upon one or the other of these."

"But this is off the subject," you will say. No. "When we are weak and feeble, the need of self-preserva-

tion drives us within ourselves; while we are strong and powerful, the desire to extend our sphere carries us beyond ourselves as far as we can go."

"No book but the world, no teaching but facts. The child who reads is not thinking, he is only reading; he is not acquiring knowledge, he is only learning words."

"Have your pupil observe the phenomena of nature, and soon you will arouse his curiosity; but, in order to make his curiosity grow, do not be in a hurry to satisfy it. Put problems before him, and let him work them out. Let him know nothing because you have told it to him, but because he has learned it for himself; let him not be taught science, but discover it. If ever you substitute authority for reason in his mind, he will no longer reason; he will be nothing but the plaything of other people's opinions."

How true all that is! And how well it depicts present conditions! Is not the school to blame for the ill-omened success of "brain-stuffers" of politics and the press?

"Never talk over the child's head."

What schoolmaster has not sinned against this truth?

"Be content to show him things at a suitable time; then, when you see his curiosity is sufficiently aroused, put some brief question which will put him on the way to working it out.....To accustom a child to being attentive, to impress upon him any useful truth, you must cause him to pass several days of uncertainty before finding it out."

"We never know how to put ourselves in the children's place; we do not enter into their ideas, but give them ours; and, always following our own chain of reasoning, we only fill their heads with errors and absurdities."

We shall have occasion further on to speak of the study of the region around one's birthplace. J.-J. Rousseau is the prophet of this local geography:

"His first lessons in geography will be the village he lives in and his father's country house; then the places in between, the streams in the vicinity, then the appearance of the sun and how to find one's way by it." "If he makes mistakes, let him be, don't correct his errors; wait in silence until he is ready to see them and correct them himself, or at most bring up something at a suitable opportunity which will make him see them. If he never makes mistakes he will not learn so thoroughly....." "Do not teach him the various sciences, but give him a taste for them, and methods for learning them when this taste is better developed. That is certainly a fundamental principle of all good education."

Further on he comes back to this point:

"It is not so much a matter of teaching him a truth as of showing him how he must go about it so as always to find truth."

How is this to be done?

"I want us to make all our own apparatus, and I do not want to begin by making it before the experiment; I would rather that, after getting a glimpse of the experiment as if by chance, we should invent step by step an instrument with which to verify it. I would rather our apparatus were imperfect and inadequate, but that our ideas were clear as to what it should be and what results should be obtained from it."—"Before he uses this apparatus," he says elsewhere, "I intend him to invent it, and you may believe that will not come about at once."—"Beyond question, one acquires far clearer and surer notions from what one learns for oneself than from what one is taught by others; and not only does one avoid the habit of submitting his mind slavishly to

authority, but he becomes readier at seeing relationships, linking ideas, inventing apparatus, than when, swallowing everything that is offered him, he allows his mind to languish in indifference..... Amidst so many admirable methods of shortening the study of sciences, we sorely need someone to give us a method of learning them with difficulty."

"The most obvious advantage of these slow and laborious investigations is that the pupil, while at work on these speculative studies, is keeping his body active, his limbs supple, and is training his hands to work so that they will be useful to him when he is a man..... Instead of making a child stick to his books, if I keep him busy in a shop his hands will work to the profit of his mind; he will become a philosopher, the while he thinks he is only a workman."

Who will deny that J.-J. Rousseau is here the prophet of the Activity School? He is equally prophetic in other places. Thus, when he writes:

"When the development of knowledge compels you to show your pupil the mutual dependence of men, instead of showing him the moral aspects, first turn all his attention toward industry and the mechanical arts, which make men useful to one another. As you take him from shop to shop, never let him see any work without putting his own hand to it, nor let him leave without knowing perfectly the reason for everything that is done, or at least everything that he has observed. To that end, share in his work and always set him an example; be an apprentice in order that he may become a master; and you may expect him to learn more from an hour of work than he would retain from a whole day of explanations."

"To work is then an indispensable duty of the social man. Rich or poor, strong or weak, every idle citizen is a rogue."

"Now of all the occupations by which a man can earn a living, that which brings him closest to a state of nature is manual labor..... The artisan depends on his labor alone; ..... if anyone chooses to ill-treat the artisan his goods are soon packed and away he goes ..... I do not say to Emile: 'Study agriculture,' he is already familiar with it. He is acquainted with all kinds of farm labor; he began with it, and he returns to it continually. So I tell him: 'Cultivate your father's land. But if you lose this inheritance, or have none to start with, what will you do? Learn a trade.'

" 'A trade for my son! My son a working man! Sir, what are you thinking of?' Madame, my thoughts are sounder than yours, for you wish to make him fit for nothing but a lord, a marquis, a prince, and perhaps some day he may be less than nothing. I want to give him a rank he cannot lose, a rank which will always do him honor; I would lift him to the rank of man, and whatever you may say, he will have fewer equals in this title than in all those he will hold from you.

"The letter killeth, the spirit giveth light. It is less important to learn a trade in order to know a trade than to overcome the prejudice which despises it. You will never be reduced to working for a living? Well, so much the worse for you! But no matter; work for honor, not need. *Stoop to the workingman's position, in order to rise above your own.* To conquer Fortune and everything else, begin by making yourself independent of them.

"Remember it is not talent I ask of you, but a trade, a real trade, a purely mechanical art, where the hands work harder than the head, a trade which does not lead to fortune, but which will make you independent of fortune."

Does not this beautiful page from the citizen of

Geneva deserve to be recalled here?

Further, the material or social aspect of manual work is not the only thing that interests him:

"Reader, do not stop with watching the bodily exercises and the skill of hand of our pupil; but consider what direction we are giving to his childish curiosity; consider his common sense, his inventive spirit, his foresight; consider what an able head we are going to help him form."—"We have joined the use of his limbs and the use of his mind; we have made an active and thinking being; to complete the man we have but to make a loving and feeling being."

And J.-J. Rousseau comes back to his favorite subject, the cultivation of the critical spirit:

"Forced to learn for himself, he uses his own reason, and not that of others; for to avoid submission to authority, we must not submit to convention; the most of our errors are due more to others than to ourselves. From this constant exercise there should develop a vigor of mind like that which comes to the body through labor and fatigue. Another advantage is that he progresses only in proportion to his abilities. Neither mind nor body carries more than it can bear. When the understanding assimilates things before they are stored in the memory, what he then draws from it is his own. If he were to load his memory without full comprehension, he would be exposed to the risk of never drawing anything from it which would be useful to him."

"Emile has little knowledge, but what he knows is truly his own; he knows nothing by halves. Among the few things he knows and knows well, the most important is this, that there are many things he doesn't know but will know some day, many other things that others know and that he will never know, and an infinity of other things that no man will ever know.

He has breadth of mind, not in knowledge, but in his ability to acquire it; and, as Montaigne says, he is, if not well-informed, at least teachable.... Once again, my object is not to give him exact knowledge, but to teach him how to acquire it at need, to make him value it at its true worth, and to teach him to love truth above all else. With this method there is little progress, but there is never a step wasted, and we need never retrace our steps."

Jean-Jacques is the enemy of verbalism. Several of the little incidents he relates aim to poke fun at the pedant who delivers a peroration before a pupil who does not understand, because he is incapable of following all the adult's beautiful and profound developments of the word.

"I don't like verbal explanations; young people pay little attention to them and scarcely retain them. Things! Things! I shall never repeat often enough that we give too much power to words; with our babbling education we make nothing but babblers."

"Let the child do nothing because he is told; nothing is good for him except what he feels to be so. In urging him always beyond his intelligence, you think you are using a foresight which you lack. In arming him with a few useless tools, which he will probably never use, you are taking from him man's most universal tool, common sense; you accustom him to letting himself always be led, to be nothing but a tool in the hands of others. You want him to be docile when he is little; that means he will be a credulous dupe when he grows up."

"Try to teach the child everything useful to a child, and you will find all his time is taken up..... 'But,' you will say, 'will it not be too late to learn what he should know, when the time comes to make use of it?' I do not know, but I do know that it is impossible for him

to learn it sooner; for our real teachers are experience and emotion, and a man responds as a man should only when the conditions demand it. A child knows that he is to become a man; all the ideas he may have of what a man is are so many opportunities for his instruction but he should remain in absolute ignorance of ideas of man's estate that are beyond his grasp. My whole book is nothing but a continued argument in support of this principle of education."

The word "absolute" perhaps goes too far, for one interest may be built up from another, the seed of to-morrow's interest may be latent in to-day's interest but, with this reservation, would it not seem that this passage was written in the twentieth century, for the use of teachers in our schools to-day?

I should like to quote many other things, but I shall limit myself to this one passage, which embodies indeed one of the essential principles of the Activity School:

"First, remember that it is seldom your place to suggest to him what he shall learn; it is for him to desire it, to seek for it, to find it; it is for you to bring it within his reach, skillfully to awaken this desire, and to provide him the means of satisfying it.

"Moreover, as it little matters what he learns, provided he thoroughly understands it and what use it is to be put to, the minute you can give him nothing further in the way of real enlightenment, give him nothing at all." "Do as much as possible of your teaching by doing, and fall back on words only when doing is out of the question."

J.-J. Rousseau has been reproached for giving vague instructions, and for failure to propose a definite program. In these words we have the explanation of his attitude. If he had known the terminology of modern psychology, he would have declared that func-

tional psychology is dynamic in nature, not static, that the free expansion of a personality precludes the fixity of a definite program.

"My examples may be right for one pupil and wrong for a thousand others. He who falls into the spirit of them will know how to vary them at need; one's choice depends upon the study of each one's individual temperament"—psychological types!—"and this study in turn depends upon the opportunities this temperament has of showing itself..... However that may be, my method is independent of my examples; it depends on the degree of man's powers at different ages, and on the choice of occupations suited to these powers. I believe it would be easy to find another method which would appear to give better results; but if it were less suited to the type, the age, and the sex of the pupil, I doubt whether it would have the same success."

After theory comes practice. Jean-Jacques had a great, an illustrious disciple, Pestalozzi. Another madman, the sceptics will say. I answer, another intuitive genius, and a forerunner of the school of tomorrow. And the science of the child, child psychology, will bear me out.

It was at the Yverdon Institute that Pestalozzi most perfectly realized his educational ideal. Let us follow the account that a contemporary writer, Marc-Antoine Jullien[1] gives of his observations at Yverdon after a thorough two months' investigation.

Let one imagine, says M.-A. Jullien, "a large group of children, divided into many smaller groups of eight to ten pupils, each with its own director or preceptor, young still and in sympathy with childhood, close to it

[1] Vide his book "The spirit of Pestalozzi's Educational Method" (in French).

in years and in tastes ; let us give all these various groups a common leader, a true father, who treats all the pupils and their young teachers as his own children, who warms them all with his own spirit, a spirit of peace, brotherhood, and love..... Then all the pupils, brought up together and helping to bring up each other, develop in freedom, feeling that they are progressing, really conscious of their powers ; every minute is profitably employed ; their whole life becomes a succession of useful occupations, agreeable activities ; confidence and friendliness animate all their relations to each other ; every kind of work is a delight ; every face beams with joy and happiness."

"These children, who make up a single large family, are all treated with the greatest gentleness by the teachers, who are themselves largely chosen from amongst the most advanced pupils ; the pupils find them companions and friends rather than teachers. Aside from the children whose parents have left them in this institution, several European governments have sent there young men preparing for public school teaching ; the Institute is for them a normal school in which they study the teaching methods used there, and in which they strive to perfect themselves in that difficult and important science which has for its purpose the training of men."

But let us first see what sort of life and spirit were to be found at the Institute.

"There is no outward show ; nothing is done for effect. No display, no elaborate equipment, no public examinations, no little automata moved by hidden threads, operated more or less skillfully by their teachers, are there to capture votes and arouse admiration. Everything is simple and natural ; the method admits of nothing that is artificial or factitious. The guiding principle is to leave the child alone, to leave him free

to act, to show him, or rather let him find out, what sort of being he is, to let him discover his own inclinations, to oppose his original tendencies only as these take a false or vicious direction, to take no action against evils until these are manifest; instead of provoking them, as so often happens in education generally, by the very efforts clumsily and dangerously made to forewarn him. The children here are rosy and robust, big and plump, their faces, their whole appearance radiating good health...these children, who up to a certain point must be left to themselves so as to develop in freedom, that the teachers may have means of finding out their individual temperament and so make the most of it,—these children are truly gay, well conducted and happy. They are always active; there are freedom and activity in the studies as well as in the games. In such ways as delight and strengthen them, they are constantly using this superabundance of life which is the prerogative of their years." Exaggerated politeness, artificial constraint, "would stifle this free and complete development of their powers, which receive every encouragement, which are carefully watched over throughout their gradual unfolding, to the end that the basic principles and the most efficacious means of education may be deduced from them."

"This very active life, so suited to their years, which prevents the premature birth and the ravages of the passions, makes the children happy in the present; this happiness is by no means won at the expense of the future; rather, it is the foundation of the purest and most enduring joys which await them when they are older."

Among a hundred and fifty pupils, "for several years not one has been attacked by any serious illness; not a single one has died at the Institute during the eleven years it has been in existence." This remarkable

result, according to Dr. Develey-Mandrot, is due "even less to the good air, the climate, the simple, wholesome and abundant food, and to the assiduous care the children receive, than to their mode of life and their constant and well-directed activity. I should like to point out to those who would prefer the children better dressed, with more considerate manners and some of the outward shows of politeness, that these advantages could not be obtained but at the sacrifice of those far more important things I have felt it my duty to emphasize."

Moral education "is also given entirely in terms of action; precepts scarcely exist here. Herr Pestalozzi's children love him as a father; they love their teachers and their companions as brothers. They perform all sorts of little services for each other." Competition, which often becomes a seed of corruption, is an unused, an unknown device in this Institution. "They do right by instinct, by necessity, for the sake of self-contentment and happiness, to show their thankfulness and their affection..... Here, the power of the Institution, the power of example and habit, the twofold influence of the *family spirit*, which develops the gentle and loving affections, and of the *social spirit*, which prepares the pupils for manhood by means of the maladjustment and friction which result from their mutual relations (granted, of course, a compensatory feeling of common interest and personal happiness),—all these things become the very soul of discipline."

And the studies?

"The general course of studies involves a considerable variety of subjects; but their very variety serves agreeably to refresh the mind, and to leave the children liberty in choosing those which are most in harmony with their natural tastes. For the essential and fundamental aim, which must always be kept in mind, which determines the general policy of the Institute, is in

some way to take and to retain hold of every pupil, so as to make a man of him in the truest and highest sense of the word, with the free and complete development of all the distinctive attributes which constitute humanity." —"The method is, from this point of view, a sort of education of the child by himself under the eyes of the teacher."

Among the subjects taught, I find "the different branches of natural history, the products of the earth, and the various uses which the mind and industry of man have been able to make of them in order to appropriate them to his needs."

"Every activity carries necessarily within itself the germ of the next one, which develops along with the child's powers as these are brought into contact with the successive steps in this field of knowledge."

Among the fundamental principles of the Institute at Yverdon, M.-A. Jullien mentions one which well characterizes the Activity School:

"Complete freedom of development of the powers or natural abilities, and of the individuality of each pupil." One must, he says, "allow free development of the powers or original abilities of every pupil, which reveal and indicate his true nature. Every inclination the child manifests provides the means necessary to its guidance. The child, in a way, brings himself up, instructs himself; the teacher is only the outward means of development and instruction."—"Every teacher, required by the principles and laws of the method to study, to comprehend, and to respect the individual temperament of every one of his pupils and the free expression of his own nature," thinks of himself as called upon not to exert his own influence, but to serve; "he lets the tendencies which exist in each of his pupils develop of themselves," —the healthy tendencies, of course!—"he limits himself to following and aiding in their growth, their progress,

and their action."

The method, according to M.-A. Jullien, "is founded on this truth, proved by experience and confirmed by wide observation: that human nature, which serves as the foundation of the method, is itself essentially *positive*, that is, creative, endowed with productive power, as are each of the original powers inherent in man; and not *negative*, or limited solely to a capacity for receiving impressions."

That M.-A. Jullien, and probably Pestalozzi himself, believed this cultivation of the creative faculty capable of providing a new basis for education, is evident from a note in which M.-A. Jullien reproaches Rousseau with not having been able "..... to go back to the source, to establish a new foundation for education, suited to the real needs of human nature, or to comprehend that the training of men is properly guidance, inadequate by itself and badly misunderstood, but good and necessary in itself, and in no need of being reformed or modified."

He maintains that Rousseau lacked "the necessary insight and wisdom to start where he could have worked out a union between man's nature and the cultivation of the mind and the arts and sciences." He lacked, moreover, "the force of character needed in taking up matters so widely separated, and in relating the life and development of the individual with the life and development of the species, or with social organization."

Similarly the Lockes, the Condillacs, the Helvetiuses, "failing to penetrate far enough into the depths of the inner nature of man, have failed to see in him anything more than an empty vessel to be filled, instead of recognizing that he has original abilities capable of development. This truth, this fundamental principle, constitutes one of the essential differences between the usual methods of education and that of Pestalozzi; the former seek only to fill the children's minds to overflowing so

as to make them appear rich in borrowed plumage; the latter is especially concerned with the development of their powers, with preparing them to have real value in themselves, with giving them personal resources."

That is getting down to real fundamentals!

This same active and creative power is to be found at the root of intelligence. What the Method calls "intuition"—which might better be described as "apperception"—is, preëminently, "*the primitive action of the intelligence, which must illumine objects with its own light.* The two essential functions of the intelligence are *production* properly so-called, or *creation*; and *reproduction*, the representation of nature, the power of reproducing what is received by means of the impression of external objects on the senses." The pupils never learn the elements of the sciences "on trust or on authority, or on the word of the teacher." Having observed the objects directly, "they are imbued with and nourished by the principles of every sort of knowledge they have been taught, to the point that they can thenceforward on this basis build up for themselves the structure of science, creating it from the foundation they have themselves laid. *They not only learn exact knowledge, but*, as Rousseau counsels, *they discover it.*"

"The pupil of the Method is not passive, he is not an automaton, not even a disciple; he acts, he discovers; he is busy, he enjoys himself, he interests and teaches himself. His mind is aided and directed; but it acts freely, makes use of its powers, develops and creates them..... This illuminating principle of Bacon's is applied: *No one truly and fundamentally possesses any knowledge that he has not, so to speak, created for himself.*"

Thus "everything that surrounds the child becomes a motive and an incentive to make him act, and contributes to the development of his powers and of his character."

"The same principle, applied directly to the child, consists in making *external nature* and *social life* act directly upon him, so as to prevent his being enclosed in a narrow circle of activity and communication. The aim is to build up, from the many relationships in which he is involved, a sort of novitiate or apprenticeship to social life, preparing him for the duties of man's estate which some day he must exercise. It would seem that these things constitute the essence and the value of public education." And that is why "there is an intentional multiplication of the conflict and frictions in the life of the children at the Institute."

As to the teacher, he should "never intervene as a teacher, or to influence the pupil; *he should respect the free impulse of nature;* he should hold rank among the pupils not on account of his status or his function, but only..... in accordance with the confidence and affection he has been able to deserve and obtain."

Does this not read as though M.-A. Jullien had read Bergson and was referring to the *élan vital* of creative evolution?

I promised to deal particularly, in this account of the school at Yverdon, with the things that bear on the *practice* of the Activity School. We are now ready for that.

M.-A. Jullien dwells on the fact that no books, or at most very few, are used there:

"The child is his own book; he acts instead of reading"; and it is "nature herself who becomes the theater of his observations and experiences, the great laboratory in which he learns his lessons." Nature is for him "at once the teacher and the teaching material."

Everything in the Method is based on action: first, because the elements in various fields of knowledge and their development are found out by the child himself; second, because he also produces the symbols representing the objects, and the tools which produce

them. He is required to give visible and tangible form to what he conceives.)

"This principle, whereby the child himself and his personal experience replace books; nature and things replace symbols of nature and things; and occupation, activity, facts, replace reasoning and abstractions, is worked out and applied to every phase of the educational process and of the formal instruction..... *Action* in every sense of the word, in every possible way, is thought out and put into practice. As for formal instruction, the child learns little and puts much into practice; he practices more than he studies. All aspects of the educational process and of formal instruction are translated into action, are living and animated."

Thus "the Method tends to make the children discoverers in all the fields of knowledge which it teaches them, and the elements of which it accustoms them to find out for themselves. Just as the elementary inner training aims to direct and develop the inner activity of the mind, focussing that activity on the perceptions which give reality to the objects of nature, similarly education for industry, the result of a sort of outward training of the human powers, aims to direct and develop the outward activity of the body, aided by the intelligence, and applied to the objects which nature presents to it."

The meaning of the word "industry" must not be mistaken. As will appear, M.-A. Jullien takes it in the broadest and most human sense, as free as possible of economic and technical implications, as we moderns use these terms. We must not forget that in 1812 wholesale manufacturing had not yet come into existence, and that the extreme specialization of the workmen bound to his machine, and all the emptiness of life without horizon, were unknown. With that understanding, I ask the reader's permission to quote in full

the pages that M. A. Jullien gives to this fascinating subject. They are capable of awakening a sense of shame in us, children of the twentieth century, who do not yet know, as Pestalozzi did a hundred years ago, how to make the most of the creative powers of the child.

I. "The Method looks upon and treats every child as a being endowed by nature with an individual capacity in the sciences and arts; it sees in him a sort of universal tool whose purpose is to act upon nature, in accord with the impulsion he receives; it aims to bring the utmost possible cultivation and development to each of his powers; its fundamental principle—to carry every study through a series of successive and very small steps, each of which prepares for the one to follow, without omitting any intermediate steps—fortifies his native talents, and prepares in advance such solid foundations, such real resources, such practical methods, as will permit any industrial bent whatever to be followed in such a way as will contribute to the progressive development of his powers.

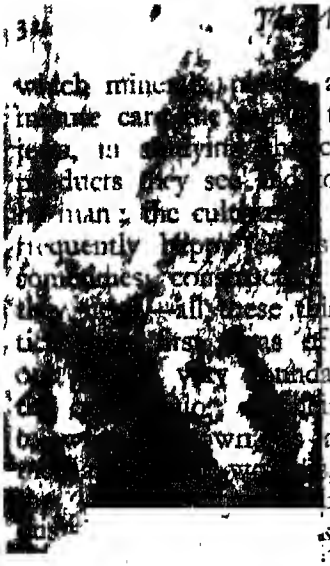
"The advantages of this elementary training established by the Method consist not in its influence on particular vocations, but in the influence it exerts on the formation of the *industrial spirit* generally, on its energy, on the whole body of occupations involved in it. This vitality spreads at once, like an abundant and energizing sap, throughout all the branches of science and art with which the pupil is expected to deal, and in every direction in which his social life takes him.

"This general spirit of industry, this principle of life and action, this source of innumerable and various powers and instrumentalities, grows essentially.....from the *spirit of logic, of calculation, and of knowledge of forms* given in the elementary instructions at the Institute. The

pupils of the Method are essentially logicians, calculators, and geometers.

II. "Domestic training, which often lacks means and objects in the ordinary family circle, finds here a more extensive sphere and wider and more varied uses. At the same time, the moral principle of feeling which stimulates industry is nourished and developed as it is in the home. The organization of the inner life of the Institute disposes every child not only to learn to be self-sufficient in most of his personal needs, but also to take part in household affairs equally, to perform all sorts of little services for his teachers and his companions; they present the picture of a closely united family, habituated from childhood to gentle affection, led to share their interests and to help one another." There follows a picture of the family life: "Continual activity, whereby the pupils, always exercising their powers without ever exhausting them, really work more than in any other school; ..... the duty delegated to the children of keeping tidy and clean their bedrooms, their study rooms, their clothing, their playthings and tools, the little gardens they have in their own right, the plots of ground put at their disposal and the tools they use in cultivating them; all the habits involved in their daily existence combine, together with the manner and the materials of their instruction, to develop in them the true *spirit of industry*, the foundation of all noble and useful creation in the sciences and the arts.

III. "Finally the pupil's amusements and particular duties provide them with food, and at the same time with new techniques suited to this spirit of industry which is awakened and developed all through the educational process and in the formal instruction. The walks over the hillsides, during



and insects are gathered; the take in observing natural ob- characteristics of the various ouch, and how these are used of their little gardens; their at evolving. designing, and the tools and implements ings define and put into prac- industry, ideas which grow ations of their education and r daily life. Some pupils go apprentices to wood-workers, , clock-makers. The girls at r own dresses and hats, vari- s, which form, develop, and l. One cannot observe with- y, the care, the religious zeal em devote themselves to the nomy and the administration is always family feeling and his activity and which gives purpose to everything that is

nanner and the materials of ic life of the establishment, hildren gain in their amuse- y tasks, constitute the par- *trial education*, or rather of preparatory for industry and as the process is described

emarks, made over 130 years ago, about vocational education in India real insight into the problem of the nal and liberal education. (Editor).

In this quotation are many teachings useful to the disciples of the Activity School to-day. Some of them have, indeed, confined themselves within the limits of real activity, as if they could find in the occupations of man nothing but a spectacle for the use of their pupils.

"They sometimes visit shops and factories, and the pupils learn to understand and compare the various industrial processes," writes M.-A. Jullien. That is all very well, but it is not enough, and Pestalozzi, as has been shown, did not stop with that. Other teachers, in contrast with Pestalozzi, have from the first used a definite vocational technique, and have had their pupils apprenticed to a trade some time before the latter could feel the need for it. All through the preceding long quotation M.-A. Jullien indicates his exact meaning by speaking of an education "preparatory for industry and for the arts and trades."

This brings up the question of pre-apprenticeship, to which I shall have occasion to refer in what follows. Very pointedly, M.-A. Jullien emphasizes this fact:

"The Institute aims not to teach any isolated branch of industry, but to lay the general foundation of the industrial spirit, based on the development of individual powers."

And, it is worthy of note, Pestalozzi saw clearly the close relationship which exists between pre-apprenticeship and what we to-day call vocational guidance. I shall return to that point also. Here, simply by way of example, is a passage from the chapter in which this point is developed:

"The child, put in contact with various fields of knowledge, as he learns their fundamentals and how his own natural inclinations are affected by them, free to choose and to follow his own instincts and

preferences, naturally applies himself best to the thing to which he is most suited, which he enjoys best, which most adequately fills him with a sense of his own powers; he is both happier and more apt for being allowed to choose and follow out his goal. At the same time that he has become familiar with the elements of several fields of knowledge, he is able to draw on them for anything which will help him in the vocation which he wishes to pursue."

In so brief a study I may not dwell further on this subject. As the quotations I have just given must show, Pestalozzi's innovations were extraordinary; like J.-J. Rousseau, of whom he is as well the most authentic disciple, Pestalozzi may be ranked among the most gifted intuitive discoverers, and he remains the most characteristic pioneer of the Activity School. Nevertheless, he himself often sins against the principles he lays down. The program of studies at Yverdon included many subjects which must be regarded as valueless, many in which the pupils' preferences were not considered; the methods used showed the effects of the excessive systematization Pestalozzi prematurely imposed on them. His idea that the child proceeds from the simple to the complex is to be handled with caution, for what is simple to the adult may not be simple to the child; the child differentiates his powers, it is true, but he proceeds simultaneously to an integration of his abilities, to a unification of his ideas, which is strictly a procedure from the complex to the simple —a conception which Pestalozzi seems barely to have conjectured. Moreover, the daily schedule at Yverdon was too heavy, too strictly parcelled out. Although an hour was devoted daily to free work—that is, with obligation to work, but freedom of choice of activity, —this hour, spent in the class-room, was very far from enough to develop initiative or to provide sufficient

scope for the spontaneous growth and expansion of highly individualized pupils, independent pupils who preferred to work by themselves, and those with minds of an inventive turn.

Pestalozzi was the product of his own age. In certain matters of detail he is out of date. In many others he is miles ahead of us educationists of the twentieth century. This reminds me of a saying of Otto Ludwig's, quoted by Georg Kerschensteiner: It takes a hundred years to discover a good idea, another hundred to understand it, and still another hundred to put it into practice.

J.-J. Rousseau and Pestalozzi have had their disciples, who have sprung up here and there to swell by their experience and example the stream of human experience. And their contributions, which furnish the basis of our knowledge to-day, will help to-morrow to create that type of Activity School to which we all look forward.

These disciples have occupied themselves, some with theory and some with practical experience. It is for students of the history of education to enumerate them and to record their names and claims. I will here deal with but one of them, Paul Robin, founder of a school and an orphanage at Cempuis who was concerned with both theory and practice.

To Robin, integral education "aims to bring out and develop all the child's powers, to bring him in contact with all fields of human activity in such a way as to inculcate in him none but perfectly sound ideas. But, after providing all this indispensable original foundation in objective realities, the method allows each one to continue and to work out his development according to circumstances, needs, and personal initiative, and to strive for complete knowledge and superior skill only in those fields upon

which depends the satisfaction of his physical and moral needs.")

That is indeed one of the essential principles of the Activity School.

The school at Cempuis practised co-education of the sexes. As everywhere, when carried out under good conditions, it proved to be an element of moral health, of joy and rivalry in work.

"What impressed visitors to Cempuis and the people who lived there, was the happy faces, the animation, the clear eyes and frank bearing of the children, both boys and girls; it was their air of goodness, of modesty, of loyalty, attesting the perfect serenity of their conduct."

At Cempuis, as at Yverdon, the household economy—beds, clothing, house-cleaning—is in the hands of the pupils, the bigger ones helping the smaller; it appears that details of practical hygiene were there carried out as fully as possible. Is that undesirable for the children of the masses? Health will always be a far more precious capital to them than the theoretical knowledge they may learn at school. Excursions, even trips lasting several days, were frequent. They always had a definite object:

"A visit to a shop or factory, the sight of a spectacle of nature, of a spring, a valley, a historic or pre-historic monument, a living lesson in science, geography, history, and morals."

But the thing that particularly interests us at Cempuis is what its historian, G. Giroud, calls *organic education*,—"which aims to develop the acuteness, precision and delicacy of the senses, and to perfect the means of expression and the instruments of labor, particularly that marvellous universal tool, the hand."

"All the children at Cempuis without exception, boys and girls, share in the manual work. The end

which M. Robin and his co-workers had in mind was essentially educational : it served to give the children a general skill of hand and quickness of eye which could be used later on in their apprenticeship to any manual trade whatever, rather than making them begin at their tender years a specialized apprenticeship to a particular trade."

We find here the very important idea of pre-apprenticeship. . . . . To the exercises in plaiting, weaving, drawing, coloring, generally carried on in the better type of schools, there were added, at Cempuis, clay- and wax-modelling for the smallest children. As often as possible the pupils were given little pieces of work to do, which they had the pleasure of seeing put into use at once.

"In this category are found the sorting of materials (bits of wood, paper, cloth, and iron, buttons, nails of all shapes and sizes, printer's type) ; the preparing of vegetables for the kitchen and fruit for canning and preserving ; cleaning weeds and stones out of the gardens and fields, the stones being used to fill in ruts in the roads ; etc.

"In the elementary and intermediate classes the pupils carry on some of these activities just described, and add to them, especially during the long hours of free study on summer evenings, such tasks as sewing, knitting, crocheting, tapestry ; many of the children have the pleasure of wearing clothes, stockings, cuffs, gloves, mittens, etc., which they have made themselves ; others perform the same service either for their companions who are otherwise occupied, or for the very little children, for whom they take the place of papas and mammas.

"But in addition to all these tasks of unquestionably very great educative value, the pupils go into the local workshops and continue to frequent them

regularly, to the extent of an hour and a half daily.

"In accordance with a rotation so arranged that all the children may visit all the shops, each one 'butterflies' successively for periods of about a month through this series of shops from his eighth to his eleventh year, at which time most of them pass into the upper classes.

"In the upper class the pupils do manual work in the shops for three hours a day, and continue the 'butterflying' up to the twelfth year, under the conditions we have just indicated."

Not before the age of twelve do the pupils begin "their specialization, that is, apprenticeship to a trade chosen in accordance with the inclinations, the aptitudes, and the individual preference which come to light during the 'butterflying'. Thus broadly prepared for, this choice, which has every reasonable guarantee of being judiciously made, becomes definitive after a preliminary consultation between the pupil, the parents or guardians, and the director of the Orphanage. We may add that the pupils are pledged to keep up a certain amount of interest in what goes on in the other shops."

For the apprentice at Cempuis, "the time spent in manual work averaged five hours a day; but this work was of course always accompanied by class-room study, in which drawing, the sciences, book-keeping, and technology held an important place.

"In such an establishment, the various service departments took care of the upkeep and repair of buildings and furniture, of materials, tools, etc., of the remodelling of buildings and the construction of new ones as required by the expansion of the Orphanage, all this activity supplying the shops with work which showed immediate concrete results."

"Here is" says G. Giroud, "a list of the manual activities which the children carry on together up to the age of twelve, as previously indicated, by the system of 'butterflying', and among which they choose at that time one trade in which to specialize, on up to the age of sixteen. This choice is made in consideration of their own preference and aptitudes, and has the competent assistance and advice of the master-workman, the teachers, the directors, and the pupil's parents or guardian :

"1. Agriculture, farm work.—2. Gardening, horticulture, bee-keeping.—3. Sewing, making and repairing clothes.—4. Shoe-making and -repairing. —5. Washing and ironing.—6. Cooking and household management.—7. Baking.—8. Care of the sick, pharmacy.—9. Earth-work and masonry.—10. Wood-working, carpentry, cabinet-making, wood-turning. —11. Metal work, wire-making, zinc- and lead-working, blacksmithing, locksmithing, mechanics, millwrighting, metal-turning.—12. Painting, glazing.—13. Modelling, casting, sculpture.—14. Printing, stereotyping, electrotyping.—15. Lithography, zincography.—16. Photography.—17. Book-binding and -boarding, framing. 18. Typewriting.—19. Various types of occasional work (basket-work, recaning of chairs, ceramics, telegraphy, etc.)."

Some of these shops, the print-shop for example, took orders from the outside, and their work was so well liked that it became necessary, in order not to overload the pupils, to send part of the orders to another shop. Naturally, boys and girls shared alike in these various activities to a degree commensurate with their powers. Even when, after the "butterflying" was over, specialization came in to separate the sexes on the basis of their respective capacities, it was deemed advisable for the girls to know how to carry on men's occupations at need, and for the

boys to know enough of household affairs to be able later on to take their wives' place on occasion. A man who does not know the rudiments of cooking and sewing, who cannot prepare a simple meal or manage simple repairs to his clothes, is not well educated.

I cannot enter here into detail concerning the various shops at Cempuis. May I, however, be permitted to quote the final paragraphs of the fascinating chapter, "Education organique" (Organic Education), which I have just summarized ?

"The girl apprentices not only take part in the work of sewing, washing, ironing, and mending, but are initiated into a mother's duties by giving daily their constant and affectionate care to the youngest girls.

"The work of the various service departments; the careful attention to the cleanliness of dormitories, washstands, dining rooms, classrooms, shops, etc., the weekly distribution and repair of clothing and bedding; the rapid laying and clearing of tables in the dining rooms; the apportionment and distribution of food; the administering of the more usual remedies; the healing of cuts and scratches, chilblains, etc.; the participation in kitchen duties; the making of pastry, preserves, etc.,—all these regular activities constituted the best possible preparation of the children for social life.

"Daily experience shows how adequately their work, necessitating constant observation and reasoning, rounds out their intellectual education and requires the constant application of ideas and their relationships."

In the teaching a constant appeal is made to "quickness of eye, skill of hand, to the spirit of inventiveness." In calculation the pupils count, weigh,

measure; they compare lengths, magnitudes, time-intervals. In this way the school museum at Cempuis has been enriched with apparatus of all kinds, as simple as it is ingenious. They make various meteorological observations. In reading and grammar, they take as a starting point games which are very similar to those invented or adapted by Dr. Decroly and Mlle. Descœudres at Geneva for their lessons to abnormal children, games which are equally indicated for very young normal children. Reading and writing are taught simultaneously. It is a pity that Robin believed he should begin this teaching with letters, instead of starting with words and being ready—when the child reaches that stage—to pass from whole words to letters, a process which supposes a more advanced faculty of analysis and synthesis.

Relaxation and liberty were not forgotten at Cempuis amidst these living and active studies. Robin set aside three hours a day for "optional work." He explained the reasons for this practice in these words :

"This last point appeared to me to be extremely important. It corresponds to children's free hours at home. It is then that the educator can study the inclinations of the children, and can encourage or modify them. It is then that the pupils can develop their taste for the sciences, for the trades, and for various accomplishments, and devote themselves freely and fully to whatever particularly interests them; photography, painting, sculpture, music, etc. It is also during these moments of leisure that the pupils take note of their impressions of the day, week, or month ; an excellent habit to form during childhood. Finally, the youngest children and those of an exuberant nature may have during this time the obstreperous recreation which is so necessary to them."

If I add to this over-brief picture that at Cempuis much use was made of drawing, of slates, of blackboards that covered the classroom walls on all sides; that there were stereopticon lectures for the history of trades, for geography, etc.; that all intellectual education was objective, and conducted almost without books; that even moral education was based on the practice of helping each other, of goodness and justice, it will be clear that this orphanage was truly a New School before the very name existed, and that it is in many respects worthy of standing as a model for educators of to-day.

"There is a method of teaching still better than that of teaching by appearance, and that is teaching by action, having the children themselves do the things we are to-day content merely to show them. This method seems much preferable; action is a form of concrete reasoning which engraves ideas at once in the mind and in the fingers." Thus wrote an illustrious Frenchman, Jean-Marie Guyan shortly after Robin's death, expressing a truth of great educational significance.

CHAPTER II

The Psychological Foundations of the Activity School

The Activity School is the school of spontaneity, the school which furthers creative expression in the child. It is an answer to the aspiration toward liberty which lies deep in every human soul. From the lowliest creature to the most highly evolved spirit, every living thing tends to persist in its own being. To that end it adapts itself to the universal laws which govern the world it lives in. But adaptation is not in itself an ultimate end, any more than is the will to live. Or rather, both are ends in themselves for the animal, but not for man. Man's ambition aims higher. Man seeks knowledge, he seeks beauty, he peers into the beyond, seeking to discover there the final cause of things. A spark of reason, he has a presentiment of universal Reason, and, without knowing what it is, yet proclaims himself at its service.

"In the beginning was the Word," the evangelist is credited with having said. But, as philology shows, the word *Logos*, while it means word or verb, also, and especially, means Reason or Wisdom. The latter gives here the more probable meaning of the sentence. Let us beware always however of ambiguity and misunderstanding. The Reason of which the evangelist speaks has nothing to do with the reasoning faculty which man possesses; at most the perfect use of the latter would coincide with it. What then is it? It is immanent Order. It is that which determines

that the laws our minds discover outside of us and within us shall be true everywhere and always; not such laws as we formulate, but the underlying reality which enables our minds to apprehend them and to bring them toward perfection.

This Reason, the principle of order and unity in the infinite diversity of phenomena, is not a dead thing, a framework, an abstract idea. It is not "static" in nature; it is not a phenomenon which will be, which is, or which has been. It is to the universe what the sap is to the tree, what the magnetic current is to iron filings. It is "dynamic" in nature. All men feel this to be true. They do not know it, in the narrow sense of the term "knowing." But it is enough that they feel it. It is enough that *their* reason aspires to Reason.

But so far this is only one aspect of the matter. Reason is not all. Along with man's intelligence and intuition, there is feeling; there is will; there are, indeed, manifold aspects to life. To feel more, to will and to be able to achieve more, these things too are profoundly human aspirations. I should say that they are universal, if I did not know that there are those in whom mental abnormality or illness has destroyed certain aspirations. Aside from these pathological cases, every man wants to live. In place of the brute formula of *the will to live*, he substitutes the so-called formula of meliorism, *the will to live better*.

What is this "better" which comes in here between the will and life? It is a principle of value. In biology, as in psychology, we see this principle expressed in an increase of power—an increased wealth of adaptive reactions in the former, an increased mental power in the latter science. Philosophy and religion in their turn declare that this increase of mental power lies in the greater and greater con-

formity of the individual to the universal laws of life and of immanent Reason. "The accordance of the will of man with the will of God:" religion puts it more simply.

This brief incursion into the field of philosophy will enable us to clear up several problems. If the end of all human life is to increase the power of the mind; if the one outstanding means of reaching this end is adaptation to the laws of mental life, we shall encounter this end and this means in whatever concerns the child. In so far as the school does not wish to break with life, nor be lost in paths of error and suffering, we should find there also this means and this end. But before we turn to the child, before we seek to discover what directions the school of tomorrow will take, we must make a more detailed examination of certain facts and laws which psychology is every day isolating more and more clearly from the apparent chaos of phenomena with which it deals.

Let us single out four of these laws, which are here arranged in order of importance: 1. Evidence of the existence in man of a mental *élan vital*, a manifestation of the dynamism which animates him. 2. The law of progress. 3. The biogenetic law. 4. Psychological types. It will not be possible, in this brief study of the Activity School, to go thoroughly into each of these fields. The writer devoted to the first subject a study the manuscript of which was accidentally destroyed; to the second, a volume of nearly 700 pages, *La loi du progrès en biologie et en sociologie* (*i.e.*, *The Law of Progress in Biology and Sociology*); to the third, a study published in the *Archives de psychologie*. This third point and the last will be the subject of a work which he has not yet been able to publish. He can therefore give here no more than a very brief

outline of these four topics. He will try, however, to make himself clearly understood, depending on his readers' intuition. The fundamental truths set forth in this chapter are involved with and, as it were, enveloped in hypotheses. But if these hypotheses are less securely based than the findings of experimental science, if they are *not yet* all supported by statistics and by every other means of objective control expressible in figures, they are certainly something more than and different from idle speculations. They rest upon reality, upon experience, upon life, and are built upon life with the conservatism and the objectivity of a scientific method conscious both of its power and of its limitations.

I

The will to live of Schopenhauer, the will to live better of the American philosophers, the will to power of Nietzsche, the *élan vital* of Henri Bergson, are so many different terms for expressing one and the same idea, that of the energy which is the motive-power of life—the life of the organism or the life of the spirit: the emotions, the intelligence, the will. Moreover, this idea involves two aspects: it is the idea of a fact and the idea of an end. The idea of an end results from the fact that the notion of *élan*, of an urge, in itself supposes direction, orientation. So it is with the words "rear" and "education." To rear a child is to prepare him to advance from a condition we deem inferior to one we deem superior; the symbol here reveals a hierarchy of values and a presentiment of the supreme value I have indicated, the growth of mental power. Similarly the word "education"—*ex ducere*, to lead out of—calls up a limited field of life possibilities beyond

which the educator purposes to lead his child or his pupil.

When the biologist says that a cell or a multicellular creature reacts, he means that the dynamism immanent in this cell or in this creature has prompted it to an active response to some stimulus from the outer world. Now what characterizes life is that if the living being encounters something which is favorable to it, which increases its power, it appreciates this something, experiences pleasure in it, seeks it out; if on the contrary this being encounters something which harms it, which tends to diminish its power or even to destroy it, it experiences pain and seeks either to destroy this source of harm or to escape from it—to escape from it if it cannot destroy it, to destroy it if it cannot escape from it.

Henri Bergson, in his *Creative Evolution*, compares the living being to a machine which constantly expends energy in the endeavor to acquire it—or, if one prefers, which constantly acquires energy with the aim of expending it. Now the French philosopher intimates that this little interplay has no goal. But this goal seems to me very clear: the living being seeks to increase its power in order to live, to live better, to escape being destroyed by the injurious forces of the surrounding world, or, most dangerous of all, by its own kind.

Everything takes place as if the external stimulus acted on the individual (1) in the affective zone—pleasure or pain; (2) in the intellectual zone—a search for the causes of the pleasure or pain, in order to know the means either of increasing this pleasure, or of escaping from or destroying this cause of suffering; (3) lastly, in the zone of action, where all the energies scattered throughout the living whole are coördinated and released toward the con-

quest of the source of enjoyment, toward the escape from or destruction of the harmful object.

This schematic conception of experience corresponds to the facts. Evidence of it is to be found at every stage of the animal scale up to the very essence of man's higher faculties. Normally, our affective life reveals to us, through happiness or joy, the increases of our mind's power. Our intelligence, guided by the affective life, seeks normally to know what the conditions of this joy or happiness are. "Where does it come from ?" the mind asks, and this question implies another, a wholly pragmatic question: "How must I direct my actions so as to gain control of it and continue to experience it ?" Once this direction is determined upon—whether rightly or wrongly, experience will tell—the will releases action, the individual gives himself, abandons himself to the activity to which his mind directs him; he no longer reasons, he acts.

On the other hand, the decrease of power, a cause of outward pain, of inward stress, of physical or moral suffering, arouses and stimulates the intelligence, which does all it can to find out how to get rid of it and devote what is left of will and energy to "getting back on top." A psychologist has made the statement that emotion is the miscarriage of instinct. Perhaps this is too broad a statement. It is none the less a corollary of the formula I used in my *Loi du progrès*, where I indicated as the alpha and omega of all suffering: "To will what cannot be carried out." To act is to realize oneself; to suffer is to be unable to realize oneself. This situation occurs when the *élan vital* encounters an obstacle, strives against it, seeks to overcome it or turn it aside. If it overcomes it—the result is victory, joy. If it is thrown back by the obstacle—the result is defeat, suffering. Error is also a cause of suffering, for it too brings the will, life, the impulse of energy against

impasses. We master nature only by obeying her, the philosopher Francis Bacon has said. We can obey nature only if we know her, I might add; either with direct, subconscious, intuitive knowledge, deeply graven in the organism as instinct is, or else with reflective knowledge, coördinated by the mind, which has sought out the elements of this knowledge from the whole field of human experience and has drawn therefrom those verifications, true everywhere and always, which it briefly names science.

All this may seem self-evident to intuitive minds, I will admit. It is well, however, to repeat it, just as it is well to separate these universal affirmations from the facts which seem to belie them, and which are seized upon and brandished before us by the sceptics, the cold dialecticians, and the half-educated, who are worse destroyers of life and truth than the frankly ignorant. It will be recalled that I used above the word "normally." Normally, I said, feeling, intelligence, and will work together to increase the mental power and the happiness of the individual, as well as to avert whatever decreases this power. But note: not only is man sometimes in error; he may also add to error—of which he is innocent—evilness of will, which carries with it the sense of fault or "sin." "The good that I would I do not, but the evil which I would not, that I do," said the apostle Paul. What has come about? Whence this brutal contradiction, to desire happiness and still walk deliberately into unhappiness and suffering?

We find here the organic and psychic homologue of what philosophy calls the norms of value. The idea of value is a projection of the mind: it attributes value to what it feels has value; and what it feels and knows, loves and esteems, is what increases its mental power. What then? The nervous centers of the living being form a hierarchical organization like a

factory where the manager's will is transmitted clear down to the lowest workman, through department heads, assistants, and foremen. Similarly our psychic centers form a hierarchy. Likewise, all our "philosophy" of life is a system of hierarchical values. Suppose now that a foreman, instead of putting his men to work, takes them out for an afternoon nap; he thus follows the right road to his own pleasure and to theirs, he perhaps adds effectively to his power and theirs, but the whole factory will suffer thereby. Thus it is with our body and mind: partial functions begin to pursue partial ends, on their own account, to their own advantage; they go on strike; they become disorganized from the whole of our personality, and our whole individuality suffers from it. This disorganization indicates simply an insufficient coördination of faculties under the control of our central ego. The alcoholic is "possessed" at times; there is a strike, a revolt within him; higher reason abdicates, impotent, before instinct run riot. When he becomes himself again he suffers bitterly, for he knows or feels that his mental power has been lessened, that he has suffered a defeat. When the enemy is without, we do not blush at defeat; when he is within, there is peril in the house; it is a question of subduing him or of yielding to him. "If thy right hand offend thee," says human wisdom, "cut it off and cast it from thee."

I have dwelt at length upon this disorganization of functions, because it is met with daily in education. Not that the child who acts wrong is sick. In the sick man—and the "sinner" is a sick man—there have been coördination and unity; the breaking up and dissociation of the self have occurred after unity has been achieved. In the child the coördination of the nervous centers has not yet come about. The same act which we judge as bad thus has in the two cases a diametrically opposite meaning: the child is growing toward unity

of self; the "sinner" is falling back into dissociation. When that is understood, is it not clear how grave the danger is when parents or teachers call "sin" that which is only error or ignorance, or lack of power in our children to co-ordinate their nervous centers? ...To punish, to define as "sin" what is not sin, is to create evil, to suggest it, to stimulate it, to fix it little by little! What turpitude is not thus engendered by good souls who, though they may have the best intentions, are clumsy, lacking in intuition, lacking in love, and in confidence in the child's goodness of nature!

There is another aspect of the mental *élan vital*—Interest. Interest is the cornerstone of the Activity School, it has been said; it supports the whole edifice. Nothing without interest, nothing beyond it. Why? Because interest is simply a word which points to the active presence of the mental *élan* I spoke of; its presence may also be designated by the term mental "appetite." It is a hunger that is evidenced, a hunger for knowledge; it is a power of the mind, working logically or practically. It is obvious that interest is inseparable from spontaneous effort.

Gabriel Compayré, in an account of Dr. Edouard Claparède's work, *La psychologie de l'enfant*, (Psychology of the child) likens interest to attractiveness. From his point of view, to seek to interest the child is to make education attractive. A more serious error could not be made; simple attractiveness does not stimulate effort, but teaches one, on the contrary, to avoid it; whereas interest is the lever which lifts mountains and stimulates the most authentic and the most fruitful effort. On the other hand, of course, painful effort, put forth unwillingly, is not true effort, useful effort, such as creates values. Only joyous effort, sustained by psychological interest, is worthy of the name effort, just as only interest that is capable of arousing and sustaining effort is worthy

of the name interest. On this subject everyone should read, re-read, and thoroughly digest the admirable pages of John Dewey's essay on interest and effort, in *The School and the Child*. After condemning the false interest which presents everything to the pupil "with a sugar-coating and thus makes a child spoiled and blasé in everything; after denouncing the futility of false effort, that which is imposed on children by external means—penalties, punishment—that which comes of boredom and provokes boredom, he shows clearly that true effort and true interest cannot exist one without the other, for both are the means used by the growing child to realize himself. "When there is real interest," he says, "the self is identified with an idea or an object, it has found in this object or in this idea the means to express itself."

To impose on the child from without a series of ideas or actions which the adult has desired, created, and imagined *a priori* is an evil that has no other excuse than tradition and convenience. John Dewey does not hesitate to affirm it: "Effort conceived as tension of the will toward what is lacking in interest is an anomaly." And to those who uphold this method he declares: "There are few doctrines so demoralizing." For it accustoms the child to seek guidance outside himself. "The spontaneous powers of the child," John Dewey says again in this connection, "his need to realize his own impulses, cannot be suppressed in any way. If outward conditions are such that the child cannot pour his instinctive powers into his work, if he feels he cannot express himself by this work, he then learns, in a wholly remarkable fashion, to provide exactly the amount of attention necessary to satisfy the demands of the teacher and to reserve a part of his mental energy to follow the lines traced by his innate needs..... One would have to be quite ignorant of the work which is done in most

schools to deny that our pupils little by little acquire there the habit of dividing their attention. This division of attention, with its corollary, disintegration of character, is so common that there is reason to be disgusted with (such) teaching."

On the contrary, "when we recognize the existence in the child of powers which ask only to be developed, offering themselves to us as starting points, so that we may assure their normal functioning and discipline them—then we have a solid foundation for building our work of education..... Acting thus, in an adequate manner, on these impulses, we obtain this seriousness, this attention, this concentration of the self toward a definite end which produces the solid and permanent habit of putting one's whole personality at the service of high ends."

Effort based on interest is spontaneous effort. If the child's choice inclines ever so little not to knowledge but to power, not to assimilation but to construction with his hands or his mind, we are in the presence of what may be called creative effort or creative expression in the child. For by this free effort he expresses himself, he externalizes what has developed within him, he moulds a spontaneous idea into a reality which is outside himself, he makes his individual life participate in universal existence. It will be recalled that this creative expression constitutes one of the chief characteristics of the Activity School. Hence it seems to me desirable to make a closer examination of what lies behind this name. I have heard it denied that the child has any creative power. The child imitates, it is said; he does not create. Even when we believe that he is creating, he is borrowing the elements he uses from what he has seen or learned. In other words, he combines anew ideas or actions which he merely imitates. True creation, the enlarging of the field of human

knowledge or of the art of mankind, is beyond the developing child who has not yet acquired his full maturity.

There is a misunderstanding here. It is taking the word creation in too narrow a sense to give it this interpretation. Moreover, we may even doubt whether creation conceived in this way is not really just this "new combination of imitated elements," acquired or learned. In fact, the term "creative expression in the child" means simply, to those who use it, that the child has given himself spontaneously to a constructive activity which is not directly imitated and which helps to enlarge the scope of his personal experience, art or science—without reference to the scope of the collective treasure of mankind's art or science, as is the case with a genius's creations. It seems to me that five elements may be distinguished in the child's creation. (1) The creation results from spontaneous inspiration (i.e., one does not create to order). (2) This inspiration is charged with *affective* potential (i.e., joy is necessary to creation). (3) This inspiration pursues an *end* (a mental picture to be brought to realization, an idea, a new ordering of old elements, acquired or imitated); this is the intellectual element of creation. (4) It is expressed by an *activity* of the mind or, more commonly, of mind and body, whatever the proportion of one element to the other. (5) Finally, this expression is relatively *new*, a fact which distinguishes it from imitation pure and simple.

Is the adult's creation essentially different from that? It does not seem to be. That of the adult is richer, more highly evolved, perhaps also better adapted to the eternal laws within the framework of which it is expressed. It is not fundamentally different.

Interest, effort, creation, are so many different terms, it is clear, to designate aspects of one and the same profound dynamism. But, just as we have discovered

pathological dissociations in the human soul, dissociations which are reflected in the choice of external ends which the soul proposes to the will—moral importance, sin—so we find here an analogous dissociation which is manifested in inability to co-ordinate efforts. The formula is no longer, "The good that I would I do not, but the evil which I would not, that I do"; but rather, "I wish to do the good which I love, but the more I drive myself to it, the less I succeed."

We touch here upon a broad and very important question, and a very complex one. A whole volume would be needed to answer it at all completely because it involves the problem of the cultivation of a *profound will.*

For there are two kinds of will, or rather two sources from which the will derives sustenance. Sometimes the will is directed by reflective, conscious, rational, calculated motives; at other times it imposes itself, coming from the depths of our being. This deep impulsion, to produce good effects, can and must of course be controlled by reflective reason, conceived here as the guardian of the store both of the individual's past experience and of human knowledge generally. For certain impulses may also cause us suffering and a diminution of vital power. But, along with reflective human knowledge, there is a spontaneous, inherited, ancestral human experience. The former is evidenced in our memory, the latter is our instinct. Intelligence and instinct are sometimes opposed. I believe rather that intelligence makes use in life of these two memories: the ancestral or collective memory, evidenced in what Richard Semon has called the *mnème*[1] (from the Greek

[1] The term has also been used by T. P. Nunn, in this sense, in his well-known book "Education—its Data and first Principles." (Editor).

mneme, memory), and the individual memory in which, in the course of education, are stored acquired recollections and those borrowed from other people's knowledge, from the knowledge of mankind, from what we imitate or find in books.

Instinct springs from the depths of our being. It wells up from what is called the subconscious. But be it observed that this subconscious is like a dark cave. It conceals both good and bad elements. We shall find there that which is most precious in the life of the soul; but we shall also find mire and stifling vapors—God and the devil, the medieval mystics would have said.

Here again there is a hierarchy of values. Here also may be found that which is worth much and that which is worth nothing, that which pertains to the very heart of all life and that which is made up of pathological débris inherited from our ancestors, that which is in harmony with universal and permanent laws and that which is the product and the combination of momentary circumstances, of contingencies of time and place. And that is why, although the medium unearths puerilities from his subconscious, the Christian[1] finds in his own depths a God who loves him and whom he loves.

To say of the healthy and good power in us that it is ancestral, or to say that it emanates from a divine source anterior and superior to all life, is to make a metaphysical distinction. The scholar, from taste or method, will always see things from the former, the mystic from the latter point of view. Why could not the mystic scholar build up a synthesis, holding that the dynamism which lifts him above himself in his pursuit of an unlimited growth of mental power, is the prime, universal, and essentially spiritual principle which the theologians and the philosophers call God; while the

[1] As also *every* truly religious person. (Editor).

particular nature of the *élan vital*, its profound adaptation to universal laws (to the whole scale of laws, from physico-chemistry to the subtlest psychology), are due to the slowly accumulated experience of past generations from the very origins of life on the earth? Fundamentally every organism, in order to live, must incessantly oppose matter to matter, within itself and outside itself, force to force, energy to energy. Touch, hearing, sight, all the senses, perhaps even certain intuitions, are like bridges suspended between the self and the not-self, between the individual and the universe. The nerve fibres are the concrete symbol of this relation. And all of this, all these forces, all these energies, all these nerve fibres are centralized, unified, held in check by the self. Not the reflective, conscious self, an evanescent spark which dims and brightens, but the deeper self, the *élan vital* which, according to the mystic, incarnates and realizes on its own scale this great principle of spiritual life which he calls God.

It is now obvious how important to man this fundamental unity is. If he is to realize unity in his life through the long stages of his education; if he is to order his actions in accord with universal Reason and with the laws of nature and of the mind, it is on one condition: he must remain in constant contact with this inner force I have spoken of, with this inner light, ancestral or divine as you will.

And this plunges us into the heart of education itself, education in the home or in the Activity School. The condition of this permanent contact with the life of the soul is calm, harmony, serenity: calm and harmony in the child's environment, calm and harmony in his inner being. That is the foundation of a whole pedagogy to which I can only point: for it is not a method, it is a spirit. Where this spirit rules, the man or the child no longer says: "I would, and I cannot."

His will to do is in accord with his deeper will. When he wills he is going to be able to carry out what he wills.

II

Thus we see that the mental *élan vital* is the root of all life, is the source of all activity worthy the name. Outside of it mechanism reigns triumphant. Within it all is warmth and radiance, love and light.

Thus it is the most precious treasure every living being has. Let us respect it in man. Let us respect it far more in the child. Once that is accepted, the urge of the life of the spirit is no longer merely a fact, an observed truth; it is an end, the object of our solicitude. And is it not also the sole means man has to reach the supreme end—to increase the power of his spirit?

In the following pages we shall consider that the aim of education—of all education worthy the name—is to conserve and increase this life impulse, in so far as it is directed to the supreme end. But we are faced with a new aspect of the problem: how does this spiritual impulse manifest itself? If we define as progress the advance of the spirit toward the increase of its power, we may unite these various questions in one and ask, what is the law of progress?

I shall not linger here with the biological and physiological aspect of the question. I refer the reader to the book already mentioned in which I have set it forth at length. There he will find described how experience—that is, contact between the individual and the outside world, by means of the pain or pleasure it carries with it—makes a selection among reactions; how the living reaction, blindly experimental as it is at the beginning, becomes thus an appropriate reaction,

that is, one which contributes to the adaptation of the individual to his environment; he will see how the appropriate reaction is fixed, mechanized, graven in the unconscious, so as to liberate the vital force for new adaptations; how the *élan vital* discriminates better and better and retains for its own good the constant elements which are hidden under the apparent multiplicity of phenomena. To grasp this empirical knowledge, to appropriate it to oneself, to enrich oneself by it more and more, to create for oneself opportunities for effective action, to protect oneself more and more against destructive elements,—that constitutes what I have called the law of progress.

It is made up of two complementary elements: (1) the division of labor which is established among the faculties—whether it be faculties of apperception, faculties of discrimination, or faculties of action; (2) the growing unification which joins into one the otherwise scattered forces of the organism. We may say figuratively that the differentiation or division of work proceeds from the center to the periphery, while the integration or unification proceeds from the periphery toward the center. That is how we build up, slowly and progressively, the spiritual pyramid which constitutes our mind, a pyramid which consists of two elements: a hierarchy of functions at the service of the mind, a hierarchy of values deep within the mind.

All of this I have said elsewhere. I shall not come back to it here. I should like simply to recall here, since we are dealing with education, that the law of progress—complementary differentiation and integration, increasing and harmonious—is also to be found in psychology. Differentiation of feeling is tact, finesse, the sense of nuances; integration of feeling is the unity, the constancy, the stability we succeed in introducing into our affective lives—passive or active, esthetic or

social—in terms of our own character and of the permanent objective values which are graven in the human soul. To lean too much to the one side, to ignore stability, is to fall into sentimentality; to lean too much to the other side is to take refuge in the ego, to become set, to miss the wealth life offers when we know how to remain open to everything, flexible and alive.[1]

The differentiation of the intelligence, also, is shown by its flexibility and quickness, and its integration by the stability of the general ideas to which it remains faithful. Furthermore, the intelligence follows here the laws of reason, which, as it is differentiated, subdivides, or as logic phrases it, analyzes the elements of reality; while the synthesis of ideas—ideas or laws—which become more and more "extensive" (and less and less "comprehensive" in the logical sense of the word) constitutes the integration of the mind. All the history of human knowledge is based on this biological principle. We shall have occasion further on to see how it clarifies not only the history of mankind in its quest for science, but also the history of every child's life in his search for knowledge. And from this principle we shall, in working out the program of the Activity School, draw the conclusion to which it tends.

Here, the bad effects resulting from lack of equilibrium and harmony are indicated on the one hand by instability of the intelligence, which ignores principles, and by prejudiced empiricism, which rejects theories even when they are sound, and systems even when they are good. The learned man is not necessarily a scholar. On the other hand, if the intelligence is rooted in rigid principles which do not take reality into account,

[1] The author is expressing here, tersely, truths of great educational value which demand careful attention on the reader's part. (Editor).

and which distort it, if it takes refuge within its ivory tower of theories which have no more than a precarious contact with factual reality, here also there will be a loss of equilibrium, in the excess of integration and abstraction.

The same may be said of the will. Differentiated, it becomes more and more flexible, advancing a greater and greater body of appropriate reactions to the demands of the environment. But by that very fact, and as a means of preparing to face a richer life, it becomes more and more integrated, stronger and stronger, more and more unified. On the one hand, flexibility but stability; on the other, stability but flexibility. Ignore stability and float like a streamer at the will of the winds, your existence is frittered away in a thousand trivial acts, without connection, without order. Impulsive people of that type are victims; they yield to other people's suggestions or to the influence of environment; they lack character.

People who are stable but lack flexibility may be known by this: they are not lacking in *sang-froid*, nor self-possession, nor perseverance; but they have lost the faculty of adapting themselves. They cling to their routine, which they set up as a rule of life. They are described as egoists, because they go their own way without yielding to even the legitimate demands of others.

All of this I wrote between 1905 and 1910 in my *Loi du progrès*. I found it recently, set forth in somewhat different terms, but with a close fundamental analogy to my own findings, by Dr. C. G. Jung, of whom I shall soon have more to say. Dr. Jung was unacquainted with my work and I with his. Is not this coincidence a presumption of correctness? Does it not indicate the direction in which psychology is tending?

Let us then give due attention to this very important equilibrium in our children. Let us not make them

dilettantes who enrich themselves with the juice of every flower, but who neglect the integration necessary to extract honey from them. Nor should we make them narrow specialists, limited workmen, lost in details and so engrossed by the necessary effort of concentrated attention that they have no more interest in nor appetite for self-cultivation, for study, for devoting themselves to a more extensive general culture. The workman, socially too specialized, loses qualities as a man: his mind remains simplistic. And if, in a spirit of revolt which is after all natural, he comes to subscribe to over-advanced social theories, the peasant, for an analogous reason—his rude life and the consequent excessive integration of will—comes to flexibility and differentiation: he rejects everything new, and becomes set in a narrow and reactionary conservatism.

How much assistance the teacher, whether in town or country, can derive, with a little ingenuity, from the very few summary statements I have outlined here!

III

Neither can I give in this book more than an outline of the *biogenetic law*. Leaving aside the considerations which belong to embryology, I should like to proceed at once to considerations of a psychological nature. I am well aware that, even in embryology, the parallelism between individual life and the evolution of the human race is denied by many biologists. But it is so evident in psychology that only a victim of prejudice could deny it. Even in embryology, those who oppose the theory of parallelism are obliged to recognize phenomena which to them are inexplicable: thus the presence of teeth in the embryo of certain fishes which do not have them in the adult state; the presence of a tail which regresses before birth in the embryo of the horse; the

presence also of these mysterious branchial arches which are so clearly marked in the human embryo.

Moreover, in support of the soundness of the hypothesis of parallelism we find scientific authorities of the first rank, among whom I shall mention only G. Stanley Hall,[1] James Mark Baldwin[2], and Irving King.[3] John Dewey, also, lays stress in most of his works, particularly in *School and Society*, upon this parallelism, which he regards as beyond question. And it is not an absolutely new thing, even in education. We know that Herbart half-perceived it, although he made use of it only in regard to the literary education of childhood: legends, stories, tales of adventure, epic poems, were to be given in succession to school children as in the course of human history. Ziller, who in everything has systematized his master's thought, has given his theory a rigid and rather pedantic development which even so is not lacking in sound observations. Mme. Montessori, also, goes to school to primitive man to learn of the dominant activities which she proposes for her *bambini*.

Thus we may proceed with confidence. But certain distinctions should be pointed out at the start. If the child is comparable to primitive man, he bears within himself, in addition to primitive man's endowment, a whole heritage of potential abilities, the presence of which must not be forgotten. On the other hand, the child has been compared with the savage of to-day. But the savage is very probably, if not degenerate, at least the fruit of a descending branch of the tree of life on earth. The adult savage is more of a child, is more infantile, probably, than the primitive adult of the cor-

[1] Adolescence.
[2] Mental Development in the Child and the Race.
[3] Psychology of Child Development.

responding degree. The latter must very probably have been psychologically better balanced, sounder. Nor should we forget that the child of to-day cannot be compared either to the primitive adult or to the primitive child of the same age as himself. He shows more resemblance to the primitive child, but to one older than himself; for in the course of the centuries there has occurred a telescoping of the biogenetic stages. Indeed, while primitive man was an adult, for example, at twelve years, as are certain savages to-day, our children are not mature until very much later: at 16, 18, 20, or 25 years, as determined by the degree of evolution of the type to which they belong; but on the other hand, our children at six years of age show certain dominant interests which were probably those of twelve-year-old primitive children. Let us note finally that the telescoping of earlier stages does not seem to be directly proportional to the passage of time. The embryo in nine months passes through the phases of an animal evolution which doubtless lasted millions of years; during his first year, and up to 16, he goes through the stages of the primitive hunter and herdsman, stages which probably lasted hundreds of centuries; from 6 to 12 years he goes through the farming and artisan stage, which lasted some thousands of years and continues —as is also the case with the first stage—down to the present, wherever the conditions do not permit the development of the stage of mental and social evolution which normally follows.

But still another difficulty is found here. It has been observed, and very properly, that certain centers of interest appear in the individual in a different order from that in which they must have appeared in the evolution of the race. This change of order occurs with no apparent reason. However, the problem is not insoluble. Several explanations may be proposed which,

if they are no more than plausible, if confirmation is still lacking, have the merit of seeming probable.

I would call attention first to the fact of the *vividity* of the hereditary engrams: the more an hereditary predisposition is accentuated, the less time it takes to acquire the corresponding habit. Whence, from generation to generation, the predominance of tendencies corresponding to the activities necessary to life: food, need of heat (housing, clothing, heating), lighting, defence, etc. The hereditary predispositions in those fields unfold very early and are developed thenceforward either in the games of children, or in the real and useful employment of their instinctive faculties. These considerations enable us to understand why certain very old but less common activities are less deeply rooted and appear later in individual evolution: the instincts of organized war, for example, or those of trade, which might be expected to appear at 8 or 10 years, do not usually come before 12 or 14.

But for these inversions of ancestral recapitulation there is another explanation, or rather a development of the first one. This explanation is perhaps a little difficult to make clear. One must remember that, from pre-history down to our own times, there have been hundreds of generations all of which have passed through childhood and adolescence, and have, at those ages, recapitulated biogenetically, in their games and in real life, preceding activities which for those individuals were already ancestral activities. Thus one may say that there is a twofold recapitulation in our children: the real recapitulation of a primitively useful activity, appearing in them at the corresponding period of their development, but to a little emphasized degree (the infant climbs, but does not climb trees in order to build his home there, as did the primitive man); then supervenes the accumulated recapitulation of generation after genera-

tion since then, which is much more intense, being, if one may so put it, the recapitulation of successive recapitulations.

I have already mentioned the telescoping of ancestral stages which takes place: the more ancestral stages man has to pass through during his childhood—in relation to this or that given activity,—the more deeply the beginning stages are buried in the past, or the more they tend even to disappear; thus the home of the neolithic man hardly appears save as an interest in caves and grottoes. But in this connection the following fact should be noted: the telescoping process causes the recapitulation to occur earlier in relation to the individual's age. Thus the "organized hunt" was perhaps called forth at the age of 25 in primitive man, for whom it constituted the height of evolution, at 21 in the medieval age, while it is at its height in the adolescent of to-day at about the age of 15.

If there is any field where the static and the dynamic must be carefully distinguished, it is the field of the biogenetic law. Studies have been published to prove, for example, that the drawings of children and those of savages and of primitive man, aside from certain traits of resemblance, nevertheless display so-called capital differences. These investigations have failed to distinguish fundamental dynamic elements from static or contingent elements, such as a choice of subjects influenced by the environment, suggestion by the environment, the civilized child's ability to imitate many things which the primitive child as well as the primitive adult could not meet with.

Perhaps the most apposite example is provided by the predilection almost all children show for means of rapid locomotion. Forty years ago children drew nothing but boats, and twenty years ago automobiles were the vogue; to-day my son, along with trains and

automobiles, draws or builds airplanes. The dynamism underlying this biogenetic interest has not changed; the static or contingent elements—boats, railroads, automobiles, airplanes—have been completely changed. Further examples: where primitive man put coloured feathers in his hair, the modern child looks to his necktie; where primitive man brandished a javelin, the child of to-day puts a gun to his shoulder, etc. In all fields, biogenetic dynamism becomes thus mingled with or incorporated in static elements provided by actuality. Our minds are so accustomed to stop with apparent forms that it is difficult for them to discern the underlying energy which has taken form, and without which this form could not exist. We thus take for essential that which is only derivative and secondary. Medicine formerly was guilty of an analogous error: it persisted in removing the symptoms of illness, without knowing how to get at the causes of the illness itself; whereas modern medicine has found that symptoms generally result from the attempt made by the organism to fight against the illness, and that it is therefore necessary to beware of obstructing them.

Let us now attempt to outline the principal manifestations of the biogenetic law from both the individual and the social point of view. This evidence as to the dominant interests of each age is based on personal observations extending over more than twenty years and made under particularly favourable conditions. In the New Country Schools every effort is made to keep from curbing the children's instincts; they are rather, I may say, allowed the freest expression, and are at times even stimulated. These instincts are given an opportunity to be spontaneously externalized during the numerous hours of complete liberty allowed the pupils. And it is often observed that a given child, long imprisoned within the narrow confines of the traditional school,

recovers his repressed childhood instincts in the New School, and at fifteen years of age plays with complete and beaming delight at games suited to children of eight to ten! Spontaneity in the child, I have said elsewhere, is a *sine qua non* of objective observation by the adult. Our children of the traditional schools exhibit quite other traits—or present them at a quite different age—than those which I have been able to observe and which are indicated below. And even before the school age, distortion of the normal may be observed wherever parents exercise an authority contrary to nature.

From the individual point of view, then, the child, if left to his own devices, exhibits first a vegetative and animal phase in which predominate eating, drinking, and the little one's attachment to the mother who feeds him. The spontaneous exercise of the senses—delight in perceiving the movement of lights, changes in sounds, etc.—is perhaps the first disinterested interest of the baby. This education of the senses is to continue up to about the age of six. It corresponds perhaps to the long period of primitive hunters with acute senses, whose sight, hearing, sense of smell and even of taste were analogous to those of the savages, and infinitely more developed than those of the modern civilized adult. Everyone who has retained recollections of his earliest childhood, will recall the acuteness of his senses at that time and the incomparable delight he derived from sounds.—I think of the sound of the bells of the *Dawn* of Jean-Christophe—of the play of colors—the kaleidoscope—of odours, tastes, etc. Do not reproach the little child for his gormandizing; it must not of course become an exclusive interest, nor continue beyond certain limits; but, aside from excesses, it is natural at his age. To the education of the senses the little child adds an interest in pursuit (hunting), in climbing, and in constructing shelters, an interest which is kept later—

eight to twelve years—and is found once more in the interest in building houses in trees, or in digging caves. The interests of hunting, capture, and war recur in the games of later childhood. The child of this age is more social and hence more likely to externalize these instincts, which, as they demand some display of energy, will undergo a considerable development. Varendonck has established the fact that organized social sense scarcely appears before seven in games with rules and a variety of rôles.

The pastoral interests—rearing of animals, construction of huts—appear later and are followed by agricultural interests—gardening. It was a significant stage in the history of mankind when established populations succeeded nomadic populations. With the hunters little or no social organization was possible; with the nomadic shepherds came the embryo of society, formed by the patriarchal family. It was only when the tribes had become stabilized that the organization of the clan appeared, with its division of labor. From then on, society dominates the individual, when it does not crush him. The animistic and fetishistic religion of primitive man is succeeded by religion with collective rites, together with a store—also collective—of legends; primitive personifications are succeeded by the deification of ancestors.

It is at this second stage of mankind—and of childhood—that writing appears, coming to supplement drawing, which for a long time has served to express ideas of all sorts. I believe that, biogenetically, we teach writing and reading to our children too early. When they themselves take the initiative it is, of course, imitation which urges them on. It will be recollected that J.-J. Rousseau and Pestalozzi have put us on guard in this matter; with the child who knows how to read, the printed word comes to be interposed between

things and himself, and he loses the benefit of the great lessons which nature and real life provide.

At the stage of the farmer and the artisan there appears an interest in barter or exchange. It is preceded by an interest in sorting and collecting—first of nondescript objects, then of objects of the same kind; and it is followed by an interest in buying and selling, which are nothing but an improved form of barter. The collecting and trading of stamps are an evocation of the ancestral activities of the age of barter.

The stage which follows might be compared to that of the migration of the peoples of the Orient, and to that of the destruction of the ancient city; it is perhaps to be found in the child of twelve in the interest in journeys on one hand, an echo of the long preceding period of the nomads, and, on the other hand, in the revolt against all authority imposed upon him. Considered from the vantage point of our twentieth century, this medieval period is a strange place in human history. What happened to make it differ at this point from the great Greco-Roman period which preceded? A new ferment was brought by the barbarian invasions—a great amount of energy, with little cultivation of the mind. Whence the immense wave of mysticism which, at first, gave the church so great an educative influence —was it not the refuge of philosophy and of ancient civilizations?—and stirred up the crusades, which are certainly one of the most extraordinary manifestations of disinterested mass sacrifice known to history. Then also there appeared, in certain spheres, the "courts of love," with their distant and infinite respect for woman. Then, all at once, came the Renaissance, with its unheard of flowering of art, literature, and philosophy. Who is to prevent us from finding these phases, *mutatis mutandis*, in the adolescent? The mental chaos of puberty, so admirably described by Stanley Hall, Compayré,

Mendousse, Gaultier, and more recently by Frederick Tracy in his *Psychology of Adolescence*, corresponds closely to the "obscurities" of the Middle Ages. It is true that in the individual it is motivated by a quite different fact of nature which happens to be placed there no one knows just why: the awakening of the sexual functions. Why it appears at this time, and not sooner or later, is a mystery.

Observe then that the period of the "courts of love" is succeeded, in the adolescent also, by a renaissance, a magnificent flowering of thought in all fields. A new balance is established little by little in the labyrinths of thought. It is the period when the critical spirit—as previously in certain countries the Protestant reform—breaks definitely with tradition, in so far as tradition has lost touch with and become inadequate to the new life of the adolescent. The mystic-minded cathedral builders of the medieval ages were succeeded by builders of philosophical systems; similarly, the youth suddenly finds the limitless fields of metaphysics opening out before him and, armed with his intuition, he plunges headlong into them.

Before resuming this panoramic survey of the social evolution of mankind and of childhood, and before sketching a picture of the present epoch and of youth, I should like once more to draw attention to a twofold evolution in opposite directions which is carried on through the stages of growth. Let us carefully consider these three elements: human beings, variable nature with her hardships, and raw material—stone or wood. What was the attitude of mankind and what is the attitude of the child, at different ages, before these elements? The little child and the patriarchal family attach great importance to human beings who are near them and who care for them, a subconscious attachment which to them is a condition of life. Later the child

discovers nature in her variety, with her untold wealth of impressions. Primitive man had always known her, as hunter, as herdsman, later, perhaps, as farmer. But this knowledge, too, is empirical. Finally, as the manual arts are improved and the division of labor is effected, giving more importance to the artisan, it is the working of stone and wood, of metals, of textiles, which comes to the forefront and confers on those who have skill in handling them a considerable importance in the conduct of human affairs. Thus the evolution of spontaneous interests runs successively through men, nature, and things.

We are going to find this order again, but inverted, from the time when, along with Greek philosophy, the philosophic mind—which later is to become the scientific spirit—first makes its appearance. The first sciences to be organized are the sciences of matter: physics, developed from the utilitarian idea of the tool and the law; mathematics, born of astronomy; exactness in the simple field of visible, tangible, and little varying things. After physics came the natural sciences, already more complex, dealing with more variable phenomena, but systematizing intuitive knowledge which comes earlier than that of the artisan: botany (agriculture), zoölogy (hunters). Finally, last of all to appear, psychology, born fifty years ago, and sociology, as yet scarcely formulated, are the sciences of the human mind, the most complex, the most difficult to grasp and comprehend.

I perceive that along the way I have left out the little child whom we were leading by the hand. Let us come back to him. He is emancipated little by little from his mother and discovers nature; he makes it the predominant object of his interest, of his study, of his knowledge, but it is a quite spontaneous study, it is wholly empirical and still unconscious knowledge.

Finally we see him handle objects, construct, build, assemble, in short, play the rôle of the artisan. He is familiar with his materials and uses them skillfully, but his mind has not yet risen to the reflective, scientific phase. When he reaches it, he will repeat the journey in the opposite direction. He will comprehend the laws of physics (12 years) before those of biology (16 years), and the latter before the laws of psychology and sociology (20 years). The ages I have put in parentheses are of course nothing more than general indications; no more importance should be attached to them. The two series, the unconscious series and the reflective series, overlap in the middle. The unconscious series of the builder and of the artisan are prolonged beyond twelve years, while the reflective series has already begun long before with counting, arithmetic, and geometry. But we must not confuse biology, a science of laws, with the descriptive sciences of zoölogy and botany, which, it need not be said, interest children very early and which bridge the gap between the spontaneous and empirical knowledge of primitive man and the reflective and reasoned knowledge of the modern scholar.

Along with the evolution of the theoretical sciences there is an equal and corresponding evolution of the practical sciences which grow out of them, and which still better illustrate, but in reverse order, the activities of primitive man in relation respectively to man, to agriculture, and to the trades. Thus the educator will be able to call forth ancestral activities even in the adolescent. This idea is suggested to me by an author whose name I do not know, who has written a book which, despite its somewhat "precious" classicism of style, is nevertheless filled with flashes of light and insight. From him we may learn how to erect a bridge between ancestral activity and the modern theoretical and practical sciences:

"It is important to note that all the occupations do not teach in the same way. And I see here three principal ways to be distinguished. First, the work of the artisan, which, because it proceeds experimentally, with constant improvements eliminating accessory circumstances, soon attains to true empirical laws and the concept of determinism"—the concept of causality, I should prefer to put it.—"Next agriculture, more groping, more cautious, because it cannot act on fundamental causes such as rain, snow, hail, frost; thus the farmer's hope for the future is different from the artisan's, is blended perhaps with more of patience and of prayer; hence a more fatalistic and also more poetic religion, which seeks for signs in the sky. The third group of occupations is that of breeders of animals, the dog, the horse, the cow, the elephant, to which I would add, without any ironic intention, the business of chief, of lawyer, of judge, for there is a close similarity between persuasion and breeding; and the educator, especially of young children, will want his place too in this last group."

It is now time to show how the biogenetic law appears to find verification also in the twofold social evolution of the race and of childhood. This is of course only a hypothesis, and at the outset I beg the reader not to look for anything further than that. But this fascinating hypothesis is veinstone in which lie hidden many nuggets of pure gold. And the fact that it is fruitful in suggestions for the educator, that it leads him to observe the child more closely and so to understand him better, is sufficient justification for setting it forth here.

From the social point of view, as I have just indicated, the patriarchal family occupies the first period, a prehistoric and subterranean stream of human development which flowed out into the light of the river of

history only when men—a few rare pioneers at first—learned how to give permanence to speech in writing. The appearance of language, however slow and gradual it was at first, must have been a tremendous factor in man's emancipation, opening the channel which led from animality to humanity, and, by the mental solidarity thus rendered possible, elevating mankind very high above the brutal forces of nature. Similarly, the little child when he learns to understand words and to use them for himself, enters into a new world; he escapes from his mental isolation, from his unconsciousness; he is henceforth a member of the human species.

After the patriarchal stage, in which the little child, unable to live alone, still belongs entirely to the family, comes the stage which, in my *Loi du progrès*, I called the stage of "tolerated authority." In history it is the epoch of the tribe, the enlarged family, and of the clan, grouped under the authority of a chief; political chief, military chief, judge, sovereign proprietor of all the wealth of the little community. For the child of six to twelve years, it is still the father of the family who plays all these rôles, succeeding the mother, who held the reins during early childhood. These rôles are beneficent; they are necessary. The child feels it. He realizes his inexperience in face of the complex conditions of the life of adults. Left to himself, he would die of hunger. But if it is the period of the family, it is also the period of the school, the stage in which the outlines of organized social life are first developed, in which he first begins to understand the rules of games and in which imitation, the predominant characteristic, facilitates the acquisition of those thousand and one rules, much more complex and difficult than those of a game, which constitute life in society. The child from then on can perform a "social service," at home or at school; he can buy bread at the bakery, fetch wood

from the wood-house for the kitchen fire, keep up the fire, etc.

Now comes stage number three: the chief or tyrant has made himself odious, the people revolt; they dream of liberty, they dream of a republic. But while they are too mature to allow themselves to be guided, they are too inexperienced to guide themselves; democtacy founders in mediocrity, which, tired of war, reëstablishes authority under the name of empire. This process was begun in classical antiquity; the invasion of the barbarians cut it short, reëstablishing a régime of undisputed regal authority; but the cities, in which man evolves more rapidly, culture being there more intensive, very soon shook off its yoke; the "franchises" served as model for the "cahiers" of the Third Estate, and the see-saw has continued since 1789 between republics and empires. This is the unstable condition—neither tolerated authority nor reflective liberty—which I have called that of "relative anarchy." In many respects mankind from the social point of view is to-day still immersed in this stage. It may also be said that this stage, lying between the involuntary solidarity of the beginning and the voluntary solidarity which logically succeeds it when reflective man has experienced its advantages, is that of individualism; the individual considers himself the center of the world; he wants no more of social organization, even if it is beneficent, which someone seeks to impose upon him; he is not yet capable of wanting another kind in which he would have to submit himself voluntarily to a social contract, to restrain his individual liberty for the good of the whole, to adapt himself to rules, to enter as a unit in a hierarchical organization. And, from the economic standpoint, that is the very point of view he must attain to sooner or later for the very liberation of his mind.

Now, are these not the characteristic traits of adolescence—revolt against authority which is made too strict, relative anarchy, impulsiveness, insatiable desire for liberty, inability to make reasonable use of it? In their intuition of great eternal verities, adolescents aspire to reorganize the whole world; and whenever three of them want to join together, they never manage to understand each other! Let them work it out; the interest in societies, athletic or literary clubs, is strong enough in them to carry them over the obstacles they will meet.

Adolescence is also the age in which preparation must at any cost be made for the fourth and last stage, that of youth. Here I do not separate phylogeny (evolution of the race) from ontogeny (evolution of the individual), for the good reason that the two lines coincide. From the example of the few adults at once cultivated and harmoniously developed who are to be found in our present society, we can foresee what the subsequent evolution of mankind and of many young people of to-day will be. The builders of the medieval ages, I said, were succeeded by organizers; social rank takes on unheard of importance; the word organization becomes the universal watch-word—not only the word, but the thing itself entwines us and dominates us, if we do not dominate it with our "reflective liberty" and our solidarity. It is the time when material liberty must be sacrificed for the sake of mental liberation. But what struggles must take place, what blows must be struck before authority imposed from without—scarcely vanquished in the field of politics in 1918—is succeeded by liberty in solidarity, such as that which the Anglo-Saxons exemplify! However—and it is an encouraging observation—mankind is moving in that direction, irresistibly. Being conscious of that process, we may, we must, hasten the progress of mankind. We can hasten the coming of objective science, of reflective

thinking, which reflects that universal and dynamic Reason of which I have spoken.

But one obstacle always rises up before the man who counts upon Plato's "Republic of the Wise": the fact that our present social bodies contain adult individuals belonging to every stage of the evolutionary scale, and that the wise men representing reason and reflective liberty are and perhaps always will be in the minority. I shall return to this point further on.

IV

There still remains the fourth and last problem of which I have promised to write, the problem of psychological types.

The psychologists have already made several attempts to classify men—and children—into different types. They all take cognizance of the importance of the question. If someone were to establish a classification which was natural not artificial, genetic not descriptive, there would follow nothing less than the overthrow of the traditional school, which groups its pupils according to age or according to their average ability in school subjects. Already attempts have been made to approach the ideal of a school where every type of school child would receive the teaching he needs. But examinations measure only certain results, and even those inadequately; the psychological tests do not cover enough ground; the classifications of types so far attempted are too summary and too artificial. Who is to lead us beyond this experimental period?

I should like to make known here, briefly, two recent attempts which seem to me worthy of notice: that of Dr. O. Decroly, of Brussels, and that of Dr. C. G. Jung, of Zurich. The former deals with children, the latter with adults.

Dr. Decroly starts with the fundamental instincts of man in nature; he enumerates these and in connection with them provides a series of observations to be made—there are some 280 in all—which may be answered simply by yes or no. Parents, even though slightly trained, teachers, in short, everybody who is closely associated with the child and observes him day after day, can answer the questionnaire without difficulty. The body of answers gives a good picture of the child and makes it possible to discover his dominant tendencies; but it is as yet only a means of investigation, and the classifications proposed by Dr. Decroly deal only with backward and abnormal children. His experiment is interesting because of its search for fundamentals, that is, for ancestral needs and instincts. These are summarized in the following table:

A. Tendencies related to self-preservation.
   1. Primary tendencies (food, need of heat, cleanliness).
   2. Secondary tendencies (extensions)—(a) Self-respect. (b) Property.
   3. Defensive tendencies. (a) Fear. (b) Attack.

B. Tendencies related to the preservation of the species. (a) Gregariousness and sympathy. (b) Sexual instinct. (c) Maternal and paternal instinct. (d) Herd instinct.

C. Mixed tendencies. (a) Instinct of rivalry. (b) Need of approbation.

D. Adjuvant tendencies. (a) Curiosity. (b) Imitation. (c) Play.

E. Complex derived tendencies. (a) Esthetic tendency. (b) Ethical, religious, and social tendencies.

F. Supplementary information. (a) Nature of activities. (b) Intellectual peculiarities. (c) General impression.

The attempt at classification of types made by Dr. C. G. Jung, the eminent psycho-analyst of Zurich, covers considerable ground. It opens up unsuspected avenues

to psychology. Who can say whether this new science does not thereby approach the eve of a revolution which will raise it from the class of descriptive sciences, or sciences of facts, to the class of rational sciences, or sciences of laws? Who knows whether Dr. Jung—like Linnæus for botany, like Cuvier for zoölogy—has not found the key to the classification of human types?

It is a noteworthy fact, and one which, as I said above, speaks for the plausibility of our conclusions, that Dr. Jung's types are found quite in accord with mine, without our having known of each other's work. The very terms are scarcely different. Nevertheless our points of departure were not the same. Dr. Jung started from the psycho-analysis of Sigmund Freud, of Vienna, while my studies were connected with American genetic psychology. In the second place, while Dr. Jung studies only adults and ignores the stages of childhood and of mankind, I have devoted myself above all to these last two aspects of the question. Finally, Dr. Jung is engaged by preference, through professional interest as a doctor, in the field of pathological abnormality leading to conclusions of a therapeutic nature, while only the pedagogical side of the question has interested me. Then is not the quasi-identity of our conclusions a presumption that we have both put our fingers on the fundamental psychological functions, capable of serving as the basis of a definitive classification of psychological types?

It is difficult to give a brief outline of Dr. Jung's categories. It is still more difficult—if not impossible—to justify them in a few lines. The reader will have perceived already, in the course of this chapter, that it is by no means easy to make the psychological foundations of the Activity School comprehensible at a glance. In a field where, for the student, years of work are necessary; where, to attain to real comprehension, he

must assimilate a whole series of difficult works, without interfering with his regular university courses, the present writer cannot be expected to enter into such detail as would be necessary to build up a complete scientific substructure for the conclusions which he advances. That is to say, that only the intuitive minded or those who in their observation, study, and thinking have followed the same paths as he, will accept his view without question.

Let us endeavor, however, to outline the picture presented with amazing wealth of detail by Dr. Jung in his magnificent seven-hundred-page study entitled *Psychologische Typen*, ["Psychological Types"] which appeared in 1921 at Zurich.

There are, he says, four principal types, each of which may be extraverted—turned outward, adapted and adaptable to the environment—or introverted—turned inward, their inner life being relatively independent of the environment, and clinging often to eternal verities of ancestral origin. (In the present outline this aspect of the question is omitted.)

"A typical attitude always signifies the merely relative predominance of one mechanism.

"My experience has taught me that individuals can quite generally be differentiated not only by the universal difference of extra- and intro-version, but also according to individual basic psychological functions.

"As basic functions, *i.e.*, functions which are both genuinely as well as essentially differentiated from other functions, there exist *thinking*, *feeling*, *sensation*, and *intuition*. If one of these functions habitually prevails, a corresponding type results. I therefore discriminate thinking, feeling, sensation, and intuitive types."

It is interesting to note the correlation of functions in each of these types. Thus, affirms Dr. Jung, the thinking and feeling types are mutually exclusive. When

there is a conflict between reason—or what the individual finds conformable to reason—and the social convention, that is, what society accepts by virtue of the conformity which governs it, the individual must make a choice. The thinking type rejects the authority of conformity; the individual of the feeling type rejects thinking when thinking thwarts him or leads him to conclusions which will bring him into conflict with the customs or feelings which dominate him.

Similarly the sensation type and the intuitive type are mutually exclusive. The sensation type stops with the repercussion in his soul of things themselves; the intuitive type looks through things and beyond things; things serve him only as means, instruments, materials, information for directing his attention toward something else which is not seen, but which the intuitive-minded man feels, divines, and which alone interests him. The difference is obvious. An individual of the sensation type, whether he belongs to the *bon vivants*, the dilettantes, or the epicureans, regards the intuitive-minded as dreamers, and intuition as superfluity, a useless thing, a metaphysical soap-bubble. The intuitive individual, for his part, does not understand that the sensation type may stop and be content in the raw reality which does not interest *him* in any way. At the very most he takes an interest in it only in order to select from it what may be useful to his intellectual speculations.

Now observe what takes place. If the excluded faculty is simply neglected, it finds compensatory expression—since it involves an ancestral potential of energy—in the form of pastime, recreation, or play; in any case it is but slightly developed, infantile, simplistic in nature. If, on the contrary, it finds itself violently disapproved of, excluded, driven out of the field of consciousness, it sinks into the unconscious, where it plays an injurious rôle. It may be the source of abnorma-

lities, of psychoses, of what the moralists call sins. In short, it turns against the individual like a scorpion's tail.

Everyone knows that, from birth to 6 years of age, the child's chief activity is the spontaneous education of the senses. The little child belongs to the sensation type. During later childhood, which Stanley Hall considers the best balanced period of growth, psycho-social adaptation predominates: the imitation of adults and of other children of the same age, the beginnings of social conformity. And that is the origin of the feeling type. From 12 to 18 years, the crisis of puberty and adolescence, calls forth an extraordinary flowering of intuitions, a fact which has been pointed out by all psychologists who have studied this problem. And that is the intuitive type. Finally, from 18 to 24 years, reflective reason, the rational and positive mind, takes precedence. Youth is, par excellence, the age in which the thinking type predominates.

What do you think of it? Are not sensation, imitation, intuition, and thinking the exact counterparts of Dr. Jung's sensation, feeling, intuitive and thinking types? There is something here more than mere coincidence.

The study of primitive man and of the dominant types which history presents would lead us to the same conclusion. The primitive hunter belongs to the sensation type, quite like the savage of to-day. It seems to me quite needless to dwell on this comparison; it is self-evident. The farmer and especially the artisan attached to clans and tribes under the absolute authority of a chief are in the school of social conformity. I have already compared the Middle Ages and the transformation experienced during puberty and adolescence: the Middle Ages, with their monasteries, mystics, crusades, as well as the Renaissance, the Reformation, and finally

the Revolution, are preeminently the period of intuition. Will the future be the period of reason? We may suppose so, provided the world continues to evolve. But there is an obstacle here. The mass of men are far from reaching the rational stage; the thinking minds are in the minority; there are more of the intuitive type, but even they are not numerous; it seems that society contains a much larger proportion of the feeling type, and a still larger proportion of the sensation type, for whom, not through necessity but from inclination, eating and drinking come first of all, along with the universal means of procuring them—money.

In an article in the Lausanne *Educateur* I made bold to declare—without any precise statistics in support of my statement, I confess—that if there are 100,000 individuals of the sensation type, there will be found 10,000 of the feeling type, 1,000 of the intuitive type, and 100 of the thinking type. Will the future confirm these hypothetical figures?

At any rate, it seems as if adult types correspond to arrests of development of some fundamental psychological function during growth. Or, if you will, we may say instead that a certain function having become predominant at the time of its normal ontogenetic appearance, it has retained this predominance. Or, lastly, if we suppose that the type of the future adult is potentially fixed at birth, we may suppose that every individual finds the richest fulfillment in the function in which his type normally predominates.

Let us try to make these types clearer in a summary table. The ages given represent only an approximation, for there are precocious and retarded children who deviate from the mean. The figures apply only to the children of Swiss regions; Italian children are to be considered more precocious and the peoples of the

North slower in their evolution[1]; differences may also be noted between town children and country children, between well nourished and poorly nourished children, born of poorly educated or intelligent parents. But that is immaterial. If we lay a foundation, statistics will correct details later on.

I. 0 to 6 years. Early childhood. Sensation predominant.
  0 to 2 years, period of tactile sensation.
  2 to 4 years, period of muscular sensation.
  4 to 6 years, period of imitative sensation.
II. 6 to 12 years. Later childhood. Imitation predominant.
  6 to 8 years, period of sensory imitation.
  8 to 10 years, period of pure imitation.
  10 to 12 years, period of intuitive imitation.
III. 12 to 18 years. Adolescence. Intuition predominant.
  12 to 14 years, period of imitative intuition.
  14 to 16 years, period of pure intuition
  16 to 18 years, period of rational intuition.
IV. 18 to 24 years. Youth. Reflection predominant.
  18 to 20 years, period of intuitive reason.
  20 to 22 years, period of pure reason.
  22 to 24 years, period in which reason successively takes up and restores to their proper sphere intuition, convention, and sensation.

It will be noted that this grouping recognizes and respects the mutual exclusions of type which Dr. Jung has observed. The rival faculties do not mingle. Thus intuition does not touch upon sensation, nor imitation upon thinking. The adjective in each case represents the faculty which throughout the individual's life outranks the one it excludes in assistance given to the predominant faculty—at least in individuals who become fixated at one or another of the periods indicated. I have designated as "pure" types those in whom the

[1] In India and tropical countries generally, children mature more quickly. Due allowance must be made for this fact in considering these age groups. (Editor).

auxiliary faculties are to an almost equal degree at the service of the predominant faculty.

Examples of intermediate types:

The feeling-sensation type has for third faculty, thinking; for fourth faculty, compensatory or repressed, intuition.

The sensation-feeling type has for third faculty, intuition; for fourth faculty, thinking.

The intuitive-feeling type, third faculty, sensation; fourth, thinking.

The feeling-intuitive type, third faculty, thinking; fourth, sensation.

The thinking-intuitive type, third faculty, feeling; fourth, sensation.

The intuitive-thinking type, third faculty, sensation; fourth, feeling.

Finally the sensation-thinking type (there are such) has for third faculty intuition, for fourth faculty feeling.

Before proceeding I wish to prevent a possible misunderstanding. The various types are characterized by the relative predominance of faculties *in one and the same individual.* It would be an error to draw conclusions from them as to the comparison of individuals with each other. We might make mistakes if we considered the evolutionary scale as necessarily the same in quality for all individuals. With this scale of values the intuitive type could look down on the sensation type, arguing that the latter is a human product not so far evolved as himself. There is danger in not being precise as to certain shades of meaning. Pride might lurk even here!

To be exact, there are some very little rationalists in the world—we have all met some of them. We also know of highly gifted individuals of the feeling type—some diplomatist trained in the Paris salons, for example. On the other hand, there are mediocre individuals of the intuitive type, whose intuition goes astray, but who are such simply because their other

faculties are still mediocre and subordinate to the whims of their intuition. As to gifted individuals of the sensation type, we need but note certain highly refined artists, or the dilettante, the epicurean, the "sophisticate," whose senses have become a lyre with a hundred strings on which they play skillfully. The contrary also holds; so true it is that it is not the nature of one's predominant faculty which ranks him as highly civilized or primitive, but rather the degree to which he has been able to differentiate it and enrich it. Each one of the four fundamental types runs the whole gamut of possible variation, from the crudest to the most refined. And so it comes about that a certain individual's third faculty may be richer and more fully developed than the first faculty of his valet—or *vice versa!*

In short, every individual may be said to constitute a pyramid of faculties of differing rank. There are very many little pyramids, and some moderate-sized ones; but rare indeed are the large ones, which resemble the old Egyptian pyramids in tiers, one of which was laid for every year of the life of the sovereign whose tomb they were to constitute.

Let us consider another question that comes up, to which I have already made reference: is a child's type innate or is it modified by education? Dr. Jung appears to believe that it is fixed from birth. Dr. Lesshaft, a Russian, who has also treated of psychological types—and who has in several essential points reached conclusions identical with mine, although he dealt chiefly with anomalies of type—maintains that it is the family which, by the way it acts thousands of times day in and day out, molds the child's type. For my part, I incline to think that the type to which every child belongs is given hereditarily, with its predominant note, but that the child unconsciously makes such use of his family or school surroundings as reënforces his own type.

Without being aware of it, he does everything possible in this direction. The attitude he takes toward the adults he deals with leads them to act toward him in a way which will reënforce the psychological faculty which characterizes him. Thus the sensation type sensationalizes his surroundings, which from then on react upon him, sensationalizing him still more (may I be pardoned the neologism!). The feeling type calls forth praise and is puffed up by it. The intuitive type stimulates intuition in others and this reënforces his own tendency. Finally the thinking type, appealing constantly to the adult's reason, stimulates the latter to reason with him. It is this tendency which impels the child to attach himself to one person in preference to another, and to mold himself thereafter in accord with that person's demands.

This is a very peculiar kind of divination which seems to me quite remarkable. Still there is nothing surprising about it. Everyone knows what extraordinary psychological penetration is sometimes to be found in very young children, even in mentally backward children. And do not animals which live in close contact with us also receive an impression of us, even to the point of comprehending and penetrating our intentions?

We may suppose that, save for sudden mutations of hereditary origin (I have observed some very curious examples of this, coming often with puberty), the type of each child is fixed once for all. The educator cannot modify it and must take that fact into consideration. What he can do, on the other hand, is to see that every faculty is cultivated, that is, differentiated and integrated by life experience, so that none remains in the infantile and simplistic state. Perhaps also the educator can contribute to the harmony of each type, in order to counterbalance tendencies which might become dis-

proportionate; he may help to establish the proper balance between differentiation (which often coincides with the extraversion of Dr. Jung) and integration (or introversion); or the proper balance between the affective, intellectual, and active tendencies, all three of which are necessary to life, but may, if neglected, lead to abnormalities of a psychopathological nature. Indeed, in each of the categories enumerated peculiarities of secondary rank enter, modifying the principal function. Thus there are emotional, intellectual, and volitional modifications of the various types. Even in the field of religion, these three classes have been observed: the mystic, the dogmatist, and the fanatic, each in his own fashion, accentuates respectively feeling, reason, and will in religion.

Saint Paul has said, *Religio est libertas.* Yes, liberty; not license or anarchy, but liberation. Let us call to mind these familiar sentences. "I have never seen that the liberty of man consisted in doing what he wanted to," wrote J.-J. Rousseau, "but rather in never doing what he did not want to." This means that the lower tendencies should be inhibited for the sake of the decisions of enlightened reason. "Liberty is the power to do what one must," said Montesquieu more epigrammatically.

In the pyramid of spiritual values of which I spoke at the beginning of this chapter, liberty is simply the progressively greater emancipation of the higher faculties of the mind, through the mechanization of the useful and necessary lower functions. Our body is an example of this. If we had to think about every muscle, we should not walk far. If we had to let ourselves be absorbed by the thousand and one little acts of everyday life, we should not be able to rise to the level of philosophic thought. To free ourselves from circumstances, to be proof against the worries which

lead us into the darkness and fog of existence, to do whatever has to be done, for others and for ourselves, but at the same time to lead our fellowmen toward the dimly perceived Light,—that is what I call liberty. That is the liberty I want for the child. That is the liberty he must learn how to win.

Note to the synoptic table.—If it is granted, in accord with history and sociology, that present-day civilized mankind exhibits in the main the mental development of a youth of twenty, the stage from 18 to 20 years may be supposed to correspond approximately to the nineteenth century (*one* century); that from 16 to 18 years to the seventeenth and eighteenth centuries (*two* centuries); that from 14 to 16 years to the *four* preceding centuries—thirteenth to sixteenth; that from 12 to 14 years, to the *eight* preceding centuries—fifth to twelfth; that from 10 to 12 years, to the sixteen centuries which preceded, and so on in geometrical progression. However, it must not be forgotten that the classical division, Greece and Rome, itself evolved as far as a rational phase (Roman law), while the invasion of the barbarians drove Occidental civilization back for long centuries to the sensation and feeling phases. A marked accentuation of emotional and intuitive life, however, radically distinguishes the latter from the corresponding stages of antiquity.

THE FORMATION OF PSYCHOLOGICAL TYPES

Predominant functions at the various stages of childhood and of kind

This synoptic table shows the dominant faculties :

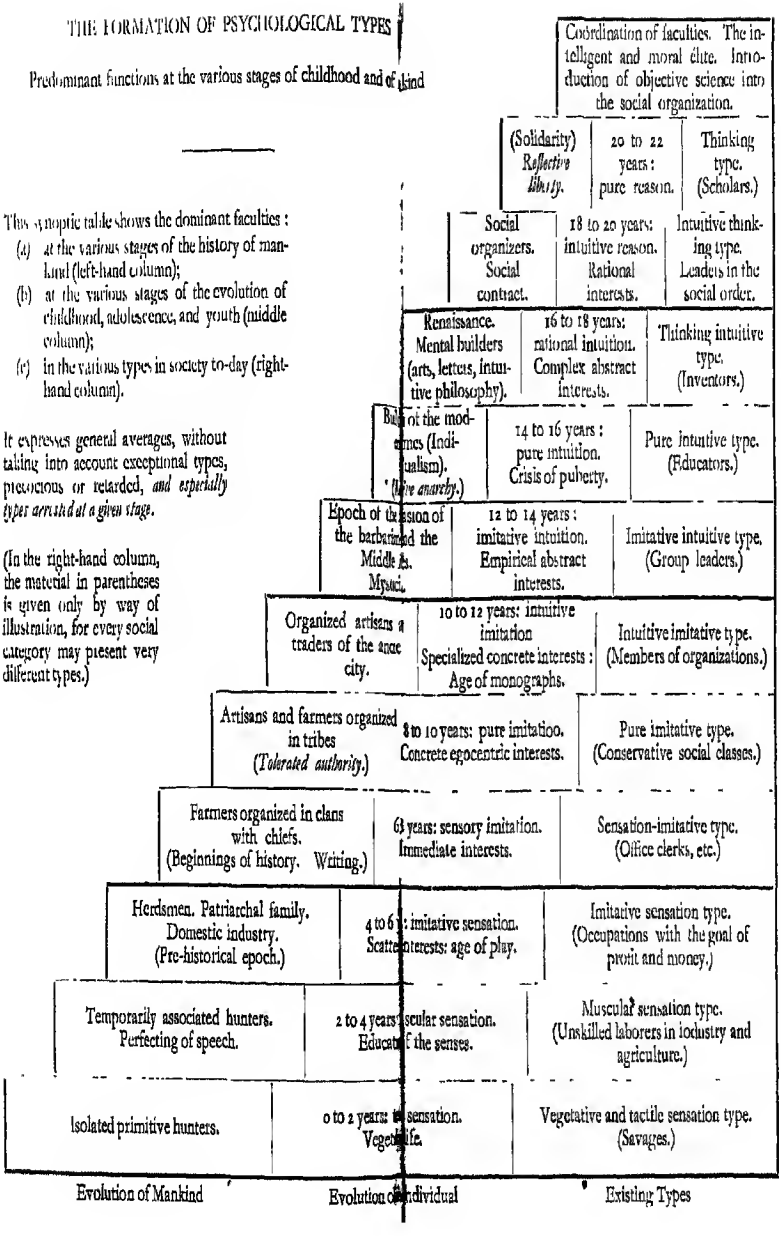
(a) at the various stages of the history of mankind (left-hand column);

(b) at the various stages of the evolution of childhood, adolescence, and youth (middle column);

(c) in the various types in society to-day (right-hand column).

It expresses general averages, without taking into account exceptional types, precocious or retarded, *and especially types arrested at a given stage.*

(In the right-hand column, the material in parentheses is given only by way of illustration, for every social category may present very different types.)



CHAPTER III

Manual Activity in the Activity School

The child's mental *élan vital*, the child's spontaneous activity, these are the basis. And the indefinite growth and expansion of this mental energy, a growth in quantity, certainly, but still more in quality, through closer and closer union with the universal and permanent values of the life of the spirit,—this is the goal. And the educative process serves to join these two extremes.

The educator starts then with the child he has before him, as he is, and not with the child-in-itself, conceived *in abstracto* or through recourse to the statistics of experimental psychology. Experimental psychology is an admirable science, and I do not mean to speak disparagingly of it. But, like every science, it establishes laws, and a law is the farthest possible remove from a concrete individuality. A law is true always and everywhere, or is no law. *The individual is himself, original and unique*, or nothing. If there were a hundred billion other individuals on earth, not one would be found identical with him. True, every energy manifested in him obeys laws, but he himself, the meeting-point of millions of forces, is a "complex"—further, a "complex" which is changing ceaselessly, is progressing or retrograding, progressing in one respect, retrograding in another, a complex which integrates its energies under the egis of its ego, or, on the contrary, sees its centers of energy dissociated, exhausted, broken up.

Such is the being, in appearance very simple, in

actuality very complicated, whom the educator has before him, whom he must understand and guide. Under the direct, frank, simple, jolly gaze of the marble-playing lad whose round and sunburnt cheeks gleam in the sun, there lies concealed from our eyes a personality so rich, a body of powers and subconscious tendencies of a complexity so great that no one, our little man no better than anyone else, could ever comprehend all their intricacies. On the one hand, driven by an inner energy which, to his own wonderment, will make him accomplish feats of which he would never have dreamed himself capable; or, on the other hand, brought in contact with destructive tendencies springing from obscure depths of his being, over which he feels he has no control and which through a thousand struggles will tend to draw him into suffering and despair,—he will be like a ship's captain, nominally master of his vessel and crew, but compelled, in order to direct them, to know them thoroughly, to accept the inevitable, and sometimes to put forth every ounce of his energy in order to make his will effective.

What then can the educator do? He must, I have said, start with what is, not with what might be, still less with what in his opinion ought to be. *The teacher who complains of his pupil accuses himself.* Pity the child if he suffers from lack of mental coördination; but do not for that reason pity yourself. Observe him. Sound him out. Almost inevitably you will end by discovering in him at least one point where he coördinates his powers so as to act spontaneously, where a living interest impels him. Have you discovered that hidden spring? Then you are at the goal. Seek no further, at least for the moment. For in this spring you have the motive power which will turn the mill. Provided you do not ask more of it than it can give, you have at hand the means both to integrate this spon-

taneous activity better and better, and also to enrich or differentiate it more and more.

Then start with the spontaneous activities of the child; start with his manual and constructive activities, start with his mental activities, his affections, his interests, his dominant tastes; start with his moral and social manifestations, as these appear in free and natural everyday life, according to circumstances, according to the foreseen and unforeseen happenings that arise: all this is the starting point of education. To educate is to start with what is, in order to lead (*ex ducere*) toward what is better; whence, as I have said, the necessity of clear vision in the adult, of gradually clearer and clearer vision in the child, of a hierarchy of mental values, the norm whereby both of them will pattern their lives. For, let us repeat, the adult is not there to act in his own name, to exercise an arbitrary authority; he is there to bring out the child's good-will in terms of spiritual values, love, reason, the true and the good. He it is who must enlighten the child's consciousness, who must enable this consciousness to grow and express its will. His own authority must be only a moral authority, the kind that is spontaneously imposed on every human being who comes in contact with a person who sees the good more quickly and surely than he. This quickness and sureness with which the chosen few can discern the true and the good are like a radiance from their superior souls; one may rebel against their opinion, as the lower self rebels at times against the conscience which speaks for the higher self and for "divine Reason"; but one knows in the innermost part of one's being, one feels and knows, that oneself is wrong and that they are right.

Thus at the two magnetic poles of life are the

urge of the mental life, "Divine Reason," and, nearer our field of vision, on one side the spontaneous activities of the child, and on the other his preparation for life—for life as it is and as it ought to be if everyone could and would make it better, both socially and morally.

This leads us to consider three distinct chapters, in which will be treated respectively the manual activities, the social activities, and the spontaneous intellectual activities of the young individuals who are starting out in life. Upon each of these original activities we must engraft those which naturally can and should adapt children to life as it is, an adaptation from which we expect more than a passive submission; for *to live is not to submit but to conquer*, and the will to live broadens into the will to live better, as a river broadens into a lake where its motive power is multiplied a hundredfold. Let us remember that adaptation in itself, as has been well shown, is not a principle of progress; one can adapt himself to less rich and more restricted conditions; far from progressing, he then retrogrades. There is, however, no progress without adaptation. To be master of oneself is to adapt oneself to the laws which govern the physical and psychological organism, is to adapt oneself to those laws so as to adapt the organism in turn to a higher idealism of life; to comply with the inevitable and necessary laws of living nature, so as with their aid to overcome the inevitable obstacles which nature opposes to us. Similarly, the conquest of the physical world, the whole work of science, is adaptation: we must know the physical world in order to make it serve our ends. In the social world itself, I may add, there is a reciprocal adaptation of the actions and reactions of every individual, tending to an equilibrium con-

stantly lost, found again, and more completely stabilized.

Let us begin by studying what the educator can make of the spontaneous manual activities of the child. These activities, as many psychologists have shown, are of ancestral origin. For our distant ancestors they were vitally necessary, the starting point of their intelligence; so they have been for each of us in our earlier years; so they will be for our descendants. "The starting point, as attested by archeology and pre-history," writes a French philosopher, "is evidently practical intelligence; esthetic intelligence followed soon after. But theoretical intelligence appeared very late."

It is thus possible to affirm *a priori* that in all respects the advantages of manual work are considerable. Let us examine more closely what they are.

Without going back as far as Rabelais, Locke, or J.-J. Rousseau, let us recollect what Pestalozzi thought of manual work—which, as will be recalled, he introduced into his Institute at Yverdon.

"To limit their needs," but also "to use everything that life and external nature can provide in order to satisfy these needs," that is the twofold attitude that must be instilled into the pupils.

Now these attitudes, Marc-Antoine Jullien tells us, are precisely those which the pupils at Yverdon adopt, thanks to "industrial" education. (It will be recalled that by this word was meant at that time manual education. Industry in the modern sense of the term, the industry of the factories, as yet did not exist, or scarcely existed. Only the shop was known.) And here are the advantages that Marc-Antoine Jullien, with Pestalozzi, saw in this education:

"From the *physical* point of view, the industrial education received at the Institute develops the energy of the body, hardens it and fits it to endure fatigue; it gives the pupils the general habits of strength and skill, which find particular application in the various arts and trades to which social life may call them.

"From the *intellectual* point of view, the instruction at the Institute, as it has been developed, furnishes the pupils all the fundamental knowledge necessary in appropriating various natural objects to the needs and uses of man. The three elementary branches of *language*, the *science of numbers* or *calculation*, and the *science of forms*, or *geometry*, together with the teaching of *drawing*, exercise and perfect at once common sense and the faculty of observation, quickness and sureness of eye and of mind; they provide the pupils with a sure and delicate touch, a certain dexterity in bending nature in some degree to their purposes, making her serve their needs, using all her products usefully and ingeniously; they give a particular capacity for seeking out, bringing together, and combining the different ways of using, to their own profit or the advantage of society, either external objects or their own knowledge. As the Method prepares the body and the hands for making use of various mechanical instruments used in the various trades, and enables the mind to evaluate the use made of them, it disposes the intelligence of the pupil to the ready invention of such apparatus as the practice of any art whatever may suggest to him.

"As to the *development of the heart*, the Method does not fail, even from the *moral point of view*, to have a salutary influence on the purely industrial objective. It makes the pupil feel how the division of labor, the union and the employment of men, or

the joining of individual forces, the interchange and mutual assistance which takes place amongst various individuals, all contribute to produce important results; and how, in the social mechanism, considered from this point of view, it is necessary for every cog to be subordinated to every other cog, and for them to sustain each other and help each other, instead of clashing and hindering each other's action."

Let us attempt in turn to outline the advantages that go with the practice of manual activities.

My experience has shown me that those advantages can be demonstrated in the field of the child's bodily development, in that of his psychological development, and even in that of his moral and social progress.

(a) *Bodily Development*

1. The child *needs* to move his muscles, to make use of them, and to that end to make them stronger and more supple.

2. *Muscular strength* is developed by the opposition between the individual energy which is manifested from within, and the resistance which comes from outside.

3. The muscles, like the intelligence, serve in primitive man but one purpose: to adapt the individual to the environment and to adapt the environment to the individual; to adapt him to the forces he cannot bend, and bend others to his advantage.

Now manual work satisfies this need, increases this power, and makes the child's muscular energy serve its natural purpose.

(b) *Psychological Development*

Let us distinguish here the development of know-

ledge, the development of the intellectual powers, and the development of the affective, intellectual, and volitional aspects of the mind.

1. *Development of knowledge.*

(a) Manual work gives the child *knowledge of a physical order*. It brings him in contact with matter, and its different properties are brought to his mind in some degree through all his senses.

(b) It gives him *knowledge of an elementary industrial order*. For, in working with matter and transforming it into useful or attractive objects, the child brings his attention to bear on the question of the utilization of the various *raw materials* provided by nature, and little by little he will increase his circle of interests in this field.

(c) Also it gives him knowledge not merely of industrial ends and useful objects, but of industrial means, *tools*. A tool or implement that one has oneself handled, cleaned, sharpened, becomes an object of respect.

Let us add that these types of knowledge not only have a psychological value, not only are useful in opening the mind to science; they can also render definite service, for the knowledge of woods and metals makes the individual a competent buyer, and the knowledge of how to handle them enables him to realize economies in his household by doing all kinds of ordinary repair work.

2. *Development of the intellectual powers.*

(a) Manual work develops *observation*. It compels and accustoms the child to look closely, to attend to details, to measure and compute exactly.

(b) It develops his faculty of mental *association*. It encourages his intellectual development by associating muscular action with cerebral effort, by leading him to comparisons, not of abstract ideas, but of con-

crete relations between various physical forces and the means at his disposal.

(c) It develops his *imagination.* The child must see in advance what it is he expects to make; he must draw it exactly, then make it, that is, give tangible and exact form to his thought.

(d) It develops his *reflection.* Indeed, manual work inculcates at once the *scientific* method and a sense of the *rôle of science* in life. It shows on a small scale what all life must realize on a large scale: the union of theory and practice; how theory is born of work and experience; how, in turn, theory can and must illumine, guide, and elevate work, enable one to avoid false leads and clumsiness, and to realize the well-known formula of economy: the maximum of useful results with the minimum of useless effort.

3. *Development of the general psychological qualities.*

(a) Manual work encourages the *coördination* of the powers. It puts to work all the *senses,* all the *organs,* all the functions of mind and body. To integrate them through carrying out some plan is a remarkable way of habituating the child to systematic and regulated activity.

(b) *Adaptation.* All adaptation is at once groping, sensation, comparison, judgment, and invention. Its goal is, in the given case, the adaptation of the environment to the individual's use; its means is the adaptation of the individual to the natural laws which govern the world. Manual activities fulfil these conditions. They call particularly upon the child's inventiveness, whether he is making the things he invents, or is inventing means of overcoming the technical difficulties he encounters. Everyone knows how children delight in inventing and creating something tangible which represents concretely and durably their ingenuity and perseverance. Now pleasure

in work is certain proof that this work is leading to some kind of progress.

(c) *Æsthetic sense.* It may be added that, if the feeling for the beautiful is born of the sense of order and of the fitness of objects for their ends, whatever is produced by the child's own labor contributes powerfully to awaken, form, cultivate, and develop in him the esthetic sense.

(c) *Moral and Social Development*

1. Manual work develops *sincerity.* In concrete work there is no lie possible, nothing can be concealed. A thing is well made or poorly made. It follows that nothing better enables the teacher to measure a child's moral character than to see him work with his hands.

2. Similarly, emulation is put on a solid foundation, whether one child's work is compared with that of others, or the child compares his own past work with his present achievements to see what progress he has made. Here he has no opportunity for ill-advised boasting.

3. And whoever has succeeded in doing something well has, in turn, an *assurance*, a knowledge of himself and of what he can do, which is one of the best incentives to progress and to success in life. The satisfaction of having been able to create a useful object is one of the necessary stages of the upward evolution of the child. If manual work diminishes false pride, it increases legitimate and wholesome pride.

4. We may be sure that if the child learns to respect the tool, as I have just indicated, he will learn also *to respect the workman.* The child learns that action is worth more than words, that adequate

knowledge and practice of a trade have more value than the most eloquent theories. He will no longer have a tendency to regard the manual worker as an inferior, and all his future attitude toward social problems and labor questions will thereby become saner and more equitable.

5. One can also arouse *altruism* by having the older pupils make a part of the school material used by the younger ones who are as yet incapable of doing it for themselves.

6. Another point, which seems to me of the highest importance, is this: the psycho-physiologists have long known that there is in the child a repercussion of the physical activities upon the psychological processes. Just as the child's moral character is shown in the way he works with his hands, so the propensities manual work gives him will recur in all the higher activities of his mind, will constitute elements in the formation of his character. And we find here the law of progress,—complementary differentiation and integration. In the field of manual work, differentiation is represented by increasing skill and adaptability, integration by increasing firmness, sureness, precision, endurance and perseverance. And the repercussion of these qualities on the psychological aspects of character will take this form: there will be differentiation in the feeling for material and social possibilities; one must, indeed, know how to adapt oneself to things and to people, to natural forces and to the character of one's neighbour; one must not ask the impossible of them. On the other hand, one should not yield beyond certain limits. Whence the necessity of integration of character, that is, of firmness, of self-possession, of energy, of assurance in one's view of what is good, and in steady progress toward this perceived good.

From this point of view, the long-continued practice of manual work is a true school of moral culture.

7. Finally, manual work better than anything else permits collaboration, from which grows the *sense of social solidarity* and of its value to the world. By definition, there is no division of work without workmen. Everyone should observe, or still better, experience, the difference between these two processes: first, a series of actions all tending to one end and all carried out by one and the same individual; and again, this same series of actions carried out together by several workers. Anyone who has not had this experience can never fully acquire the social sense. Whether it be work in the garden, earth-work, or staging a theatrical piece and making the costumes and scenery, one will see what wonders regular collaboration will work, one will learn to know what conditions must be fulfilled if the collaboration is to be effective and efficient. At the same time, one will have a concrete picture of what constitutes the essence of social progress.

For the sake of comparison, and by way of confirmation of what precedes, I should like to add this opinion of the able English physiologist, Mr. J. Sanders Arkwright. In an article entitled *Manual Work and the Cerebral Mechanism*, he thus explains the repercussions of the former upon the latter:

"1. There is a definite relation between manual work and the cerebral mechanism.

"2. There are in the brain certain centers which govern the various movements of coördination. As new movements are attempted, new centers become active, certain nervous impulses become more or less habitual, so that new nerve paths are started and established and the connections between the various centers of the brain become clearer and stronger.

"3. The progressively higher development of the brain depends upon establishing connections between the motor and sensory centers, the practice of manual work aiding so effectively in developing these highly specialized complex centers that it leads finally to brilliant intelligence and a well-balanced mind.

"4. Progressive manual work for children from four to fifteen is thus not time lost, but constitutes on the contrary the true and only procedure for normal development, since it opens up indeed the only road along which Nature herself attempts to lead the child."

Such are the advantages of manual work. What method shall be employed in teaching it?

He who has grasped the basic idea and the spirit of the Activity School—the cultivation of spontaneity by the awakening of interests, the free play of the law of progress which demands that the child, by means of trial and error and the natural sanctions, develop from his original, undifferentiated state toward skill and sureness—that person will not start out with a grammar of movements, a dry exposition of the properties of raw materials and of the handling of tools. He will not try to start the child mechanically and by infinitesimal stages upon processes which will allow of no useful work until much later. In other words, his method will not be logical, but psychological; it will not be formalistic, working from without inward, but will let the child's need manifest itself from within outward; it will confine itself to creating the environment, the technical surroundings which encourage imitation, and will watch out for accidents: too serious natural sanctions, false leads. Until the child comprehends the chain of cause and effect which makes the excellence of the end dependent upon the excellence of

the means used in attaining it, he is not ready to grasp the significance of apprenticeship. The same technique which, imposed too early, brings nothing but indifference or dislike, will later on, when the pupil comprehends its value and desires it, be a source of interest and pleasure. I have seen this happen many times.

The child begins by playing and imitating, and then gets it into his head to create something useful. Let us allow him to satisfy, each in its own time, all his legitimate desires. Let us allow his imagination to assign the ends to be attained and his ingenuity to find the means to attain them. Let him, until he is eight or ten years old, seek, grope, work things out, at grips with the difficulties he will meet; he will learn by experience what can and what cannot be done; by himself he will acquire skill in the handling of tools. Skill (differentiation) and sureness of hand (integration), complementary to one another, will each contribute to the growth of the other as experiments are carried on.

For here too, as in all life, we find the law of progress at work. The young mother who teaches her little one to do everything quickly and well, first well, then quickly, little suspects that she is applying one of the highest laws of biology.

To act otherwise, to impose a method, is to suppose in the child a power of abstraction, of reflection, of reasoning which he does not yet have, and which must be acquired through this very handling of concrete objects. How many adults at the most would be capable of applying a theory with the sole aid of their conscious reason? This means, that what is effective for only a few of us, we exact daily from thousands of children, for every reason and for no

reason. And people are amazed that so many of the poor little ones are "thick-headed" !

Does this mean that we must do without educators and that the pupil has only to follow his caprices? That would be to fall into the opposite extreme. If the educator has the necessary tact, he will know how to answer the questions of the embryo apprentice, he will serve him above all as a model to be imitated, he will provide him a technique, he will encourage his skill and perseverance, he will help him escape too gross tactical errors, accidents, and imprudent action generally, the sanctions of which would be more serious than is educationally desirable.

At first, indeed, apprenticeship to manual work must have no other end than the formation of character. The idea of vocational usefulness must not intervene before the age of twelve. From then on, even for children who will take up a liberal, or commercial, or industrial career in which muscular skill plays no part and in which the hands are used only to write with, I believe it is desirable to require a real pre-apprenticeship to some manual trade, carpentry, for example, or tin-smithing. However, carpentry seems to me to be of all trades the one which combines the greatest number of the advantages I have enumerated. It was this trade, it will be remembered which was proposed by J.-J. Rousseau ; but he, under the influence of the classic economists, preferred to carpentry—theoretically at least—agriculture, and, strangely, blacksmithing.

"The first and most honorable of all the arts," he writes in *Emile*, "is agriculture ; I would put blacksmithing second, carpentry third, and so on. If the child has not been misled by vulgar prejudice he will rank them in the same order."

Why then would he set Emile to work at carpentry? Here is the reason:

"Everything considered, the trade I should prefer my pupil to choose is that of carpentry. It is clean and useful, and can be carried on at home; it keeps the body well exercised, it requires skill and industry; and although use determines the general form of what is produced, elegance and taste are by no means excluded."

Moreover, many other minor arts may be carried on along with carpentry, or even before it, granted adaptation to the age and to the individual psychological needs of the children and to the demands of the trade itself: blind experimentation would be out of place in the apprenticeship to book-binding, for example; let it not be taught, then, if possible, save to the oldest and to those only who are interested in it and want to take it up. To inflict book-binding on all the pupils of a normal school for teachers, as I have seen it done in a Swiss village, will only serve to create in most of the pupils an antipathy to this trade. The same thing, however, has been done in every other trade as well at this school.

I shall perhaps be asked what are the trades that I should recommend for the ideal Activity School. I should not recommend any one of them in particular. The choice must depend upon local circumstances, on the materials available, on the local industries, and on the teacher's preparation. As circumstances and material resources dictate, one may use wood, iron, zinc, tin, copper, glass, paper, pasteboard, linoleum, cork, wicker, hemp, leather. With a very nice sense of the correlation between the interests of children and the arts of our distant ancestors, Mme. Montessori recommends pottery for the very small children. I believe it superior to

modelling, which, as it is only play, tending more toward the esthetic than the useful, is not generally in harmony with the dominant spirit of children. Let us not forget gardening, where it is possible, and still more the raising of small animals. For the child to feel himself the master, the protector, the guardian of creatures smaller and weaker than he, whose life and well-being depend upon his care, is one of the greatest moral and social stimuli existing. The arguments which Mme. Montessori brings to light on this subject, in her work on *Children's Houses*, seem to me thoroughly sound.

The manual trades are, however, not the only occupations which the pupil can profitably undertake. Most of the subjects taught, as I shall show later on, may well be supplemented by manual work. Thus it would take pages to show the value of freehand drawing, used as a means of expression before learning to write.

Pestalozzi had already perceived this, and he had observed how well freehand drawing reveals the pupil's character to the teacher. In the previously mentioned work by Marc-Antoine Jullien we read :

"The children, in the figures they draw voluntarily, often express very happy ideas, and manifest their inclinations and the nature of their talent. It is even found that each pupil's character, energetic or weak, cool or ardent, is to a certain extent revealed and portrayed in these voluntary sketches, free and spontaneous products of their imagination and their taste. This moral aspect of observation in the teaching has been perfectly grasped by two young teachers at the Institute at Yverdon, both pupils of Pestalozzi, who often astonish the men of art to whom they explain their method of teaching by the accuracy with which they can at once distinguish various degrees of

merit and of character in their pupils' productions, by the wisdom of their comments, and by their sureness in pointing out and obtaining desirable results."

It was with justice that M.-A. Jullien—in 1812—described this as "an original and truly creative method."

Creative indeed, because it creates joy; and joy is an index of progress. M.-A. Jullien expresses the thing well, with the archaic naïveté and freshness of his time:

"The child's own individual character," he says, "finds expression above all in drawing. He loves to work in accord with his imagination and his nature, and to produce beautiful forms, agreeable figures. He produces them by a free impulse of his will; he enjoys everything he does; he experiences an inner satisfaction. He has imitated God; for he has, so to speak, created; he is well pleased with his handiwork, he has seen the good and the true in his production. The teacher is here simply a witness, and can only at times serve as guide; the pupils, free to go his own pace, in his own way, consults his powers, follows his inclination, obeys his nature.

If freehand drawing, when it has the support of the teacher's real interest, along with appropriate suggestions as to technique, renders invaluable service to both the child and the educator as much may be said for painting—water-color, pastel, and other processes. By their aid it is possible to illustrate almost all the subjects taught, especially if the drawing is accompanied by the construction of all sorts of objects. I do not, as I have said, share Herr Kerschensteiner's opinion when he sees therein nothing but idle play and a waste of time. For children up to about twelve years of age, the simple fact of looking at things, of drawing, better still of

making a concrete object, is a wonderful aid to the work of thought. May I recall here the argument I gave above? During all the time given, for example, to the construction of a lacustrine village in miniature, the pupils will picture to themselves the life of these inhabitants, will ponder what they have been told about them, and, as they are transported in thought into these homes of primitive man, they will find a thousand questions to ask about their kind of life and will compare the general conditions of life in those times with our own. If too much time is not given to these "illustrations" of lessons, I believe that as long as the play attitude is preserved, especially between eight and ten years, they develop acuteness of mind not less than manual skill.

I recall having seen at the pedagogical exposition in London, in 1908, scenes from the life of Robinson Crusoe, illustrated in wood, clay, colored sand, paper, and cardboard; they must have been the delight of the little children who engaged in this activity.

For the older ones, an activity which has proved to be a wonderful aid in the teaching of history and literature is the theater. Not, it should be understood, the mere study of ready-made pieces, on a ready-made stage, with costumes rented for the occasion. I mean pieces composed in common, to illustrate the life of some historic figure or of some hero of fiction, pieces for which scenery is planned, constructed, and painted, and for which the costumes are made with a view to the most exact historic reproduction possible. Every time I have had the pleasure of witnessing the inception and the development of a drama or a comedy created under these conditions, I have not only been carried away by the wave of youthful enthusiasm, but also struck by the impression these things leave afterwards in the

way of vital interest in the historical or literary period studied.

Let me not be misunderstood; I do not mean the classical drama nor the modern piece learned and played by the students at a secondary school—an excellent practice, however, which should often be carried out, especially if the language, harmonious and beautiful, accustoms the young actors to excellence of elocution and of diction. Neither do I mean the rough sketches spontaneously written by the children themselves working together, or by one pupil more gifted with initiative than the others. This exercise also is excellent, from time to time; one can never give too much encouragement to that which unites the children's invention and interest—the joy of creating. But as these little pieces often have a very limited literary value, and as their language is generally incorrect, it would not be advisable to spend days in learning by heart and repeating such imperfect productions. What I do mean is pieces worked out together by teacher and pupils. The plot is discussed together, each one writes as he is moved, the best things are chosen by the group, improvements are made, and the acceptable fragments are knit together; the teacher will take heed that the finished work ready to be learned has life, that the style is correct, and the action varied and animated.

Will it be objected that this requires on the part of the teacher a talent with which few are gifted? I believe that most of our teachers of literature in secondary schools are capable of directing this work, and that they would be glad to do it if they were not dogged by a course of study that has to be hurried through. I may add that it is not necessary in these exercises to aim at masterpieces. One need merely avoid faults of taste

and faults of style. For the rest, if there be high spirits, joy, a flame of enthusiasm, enrichment of mind, the goal has been attained.

Let us proceed.

Starting with relief maps in sand and doll houses for the very small children, on through experiments with baking, weaving, candle-making, and other simple industries for the intermediate pupils, up to museum collections, dramatic productions, and the construction of scientific apparatus for the older pupils, the educator will be able to suggest to his pupils a whole ladder of activities which can be carried out in common, tending not to disperse but to concentrate attention on the study material and thereby contributing to the cultivation of the mind. For manual work in the school, I repeat, has value only as it is put in the service of the education of the mind.

Obviously, if we are to replace bookish activity that requires immobility of the body with objective activity which calls for movements, for the use of tools and bulky materials, the present classroom, with its improved desks, will be far from adequate. That is why the Activity School adopts the classroom-laboratory or the classroom-workshop: movable tables made of boards laid on sawhorses; simple stools, there being no danger of spinal curvature with habitual and varied bodily activity; along the walls, book-shelves and cupboards for storing materials used in the hand-work; above these, reproductions of works of art, for beauty is needed all through life; and, finally, window-boxes with green plants. This is the frame. We must admit that all this will put to flight the traditional teacher who can explain his *De Viris* only before silent desks and bare walls.

Individual work, I can certify from experience, becomes even more lively in an attractive and well-

arranged classroom-workshop. During the hours when they must be transformed into temples of pure thought—and there are many such hours in the Activity School—the silent presence of tools near by takes away nothing of the dignity of the room.

According to the number of pupils and the arrangement of the rooms, a special room may be devoted to each subject: biology, weights and measures, history, geography. These last two will be museums and reference rooms rather than workshops. There will be a place for woodwork, another for various minor trades, a room for drawing and modelling, a kitchen—that is, for the pupil's experiments and not for the school table—a play-room, a school library ruled by the law of silence, a general museum; for the teachers, a library used as a study; for the students of medicine and psychology, a room serving at times for physical measurements (health records) and at times for the periodical examination of the pupils' mental progress (psychological tests). We must not forget an open space for games, trial gardens, and pens for animals. At the New School of Hof-Oberkirch, before the war, they were raising as many as thirty-five different kinds of animals, nearly all of which were local mammals and wild birds!

And since we are building educational castles in Spain, without considering expense, let us dream also of sun-baths, on the roof or, better, out in the country, not only for weak children but for all. He who has seen the work of this admirable medicine, the sun, wants no other. I should like for our children to live all summer in bathing trunks, to play and work in this costume. Along with nervous stability, the sun and fresh air bring health and joy. Manual work and sunlight, these are the two great friends of the

little ones. None of them should be deprived of either one. For these things were also the friends of our primitive ancestors, whose voices children alone still hear as a call, a distant echo which sounds across the ages.

Up to now I have spoken of manual work with an educative end, as John Dewey understands the term, and I have let it be assumed that one could add to it manual work conceived as the acquisition of a technique, in the sense in which Georg Kerschensteiner understands it. In regard to this second point I would make two reservations. At the very beginning the technique must be understood and wanted by the child; if he does not want it he is still too young to understand the necessity for it, and if at that time it is imposed upon him, he will infallibly take a dislike to it. This means a serious delay in the effective acquisition of this technique, a corresponding delay in the utilization of the technique for the purpose of spontaneous and creative expression; or it may mean suppression, for there are nascent tastes which, stifled in the bud, will never grow again; spontaneous inspiration, especially of the biogenetic type, comes but once; to miss the right moment is to cause a whole branch to wither and so destroy the harmonious balance of the entire tree.

My second reservation is this: in the end it pursues, technique must not have a definite vocational purpose. The idea of bread-winning must remain, far from the child's mind in the elementary school, for it does violence to the universality of curiosity. To aim at a narrowly utilitarian end is to obstruct the view of that higher spiritual goal which the school must maintain, and which, in the hierarchy of values, is much more useful. To aim too near is to become incapable of aiming farther. Now, even in the vocational and utilitarian

sense, it is well to have aimed far. The workman who has culture—not the verbal school culture, but that which is based on sound observation, comparison, and deduction—such a workman is, even in his special field, a more skillful workman than he who has limited himself to his speciality. If the child comes to school with utilitarian preoccupations, as he inevitably will if poverty rules over his environment, the school, at least, should be an oasis of peace, the wondrous world of disinterested knowledge where every sort of curiosity finds its nourishment, where every live interest can be expressed in spontaneous and joyous activities.

What is that? Must we keep out of the school not only all vocational apprenticeship, but all pre-apprenticeship as well? Do not the pupils' individual manual activities provide a ready-made starting point for vocational guidance, designed, as it were, for the purpose? For manual work, it has been shown, reveals —far better than the psychological tests, incomplete and limited as they are—the fundamental aptitudes of the child.

For, although up to the age of fourteen and saving absolute economic necessity (famine, public calamity) I would wish to see utilitarian vocational apprenticeship excluded from the elementary school, I by no means believe that this aspect of the problem of existence should be ignored. And this brings me to the third aspect of the question of manual work, that of aptitudes and of pre-apprenticeship.

Pre-apprenticeship—the word may be new, but the idea is old. Always, along with the apprentices properly so called, there have been "butterflies"—to employ the term used at Cempuis—who were there to try their strength, to be broken in to the trade, and to discover their aptitudes.

This discovery of aptitudes by means of the interest

shown in various manual activities had attracted the attention of J.-J. Rousseau and of Pestalozzi.

Seeking to determine what trade Émile should take up, J.-J. Rousseau wanted it to be useful and honorable. But he at once added:

"That spirit must guide us in the choice of Émile's trade, or rather, in his own choice."—"As we review the productions of nature and art with the child, as we stimulate his curiosity and see where it leads him, we are enabled to study his tastes and inclinations, and to perceive the first spark of his genius, if he has any well-pronounced talent."

Another advantage, negative this time, is that of allowing passing fancies to work themselves out. Only by trying things out can we determine what the true interests are. In this connection let us ponder Jean-Jacque's sage counsel:

"We must guard against the common error of attributing to the ardor of talent what is merely a passing influence, and of mistaking for a real gift in this or that art what is nothing more than the imitativeness man shares with the monkeys, which leads both to want to do whatever someone else does, without particularly knowing why. The world is full of artisans, and especially of artists, who have no real talent for the art they practice, into which they were thrust at an early age, either to suit other people's notions, or by reason of an apparent zeal which would have led them into any other art if they had happened to come in contact with it. One hears a drum and fancies himself a general; another sees a building going up and decides to be an architect. Everyone is attracted to the trade he sees before him if he thinks it is held in honor..... There is a great difference between taking delight in some kind of work and being fitted for it. It takes more careful observation than one might think to be certain of a child's

true talents and tastes, for his passing interests are more evident than his real talents, and he is judged by the former for lack of knowing how to study the latter."

And here the author of *Emile* calls—long before they had received a name—for psychological tests:

"I wish some judicious man would give us a study of the art of observing children. This art would be well worth knowing; fathers and teachers so far know only the elements of it."

This declaration anticipates Herbert Spencer's saying: "Knowing as little as we yet do of Psychology, and ignorant as our teachers are of that little, what chance has a system which requires Psychology for its basis?"

Fortunately the world has moved since then!

In lieu of anything better, the child reveals through his manual work the aptitudes which will guide him in the choice of a trade. Emile has already had many occasions for contact with nature:

"Since we are concerned only with the work of the hands, this choice has already been more than half determined by the exercises we have had him engage in so far. What do you want him to do? He is ready for anything; he already knows how to handle the spade and the hoe; he can use the lathe, the hammer, the plane, the file; the tools of all trades are already familiar to him. He now has only to acquire ready and easy skill with some one of these tools to equal in diligence the good workmen who use it habitually."

There, simply, is the definition of pre-apprenticeship.

Pestalozzi, too, used pre-apprenticeship for the deliberate purpose of discovering aptitudes. While this term is not yet to be found in J.-J. Rousseau, we find it in M.-A. Jullien. As an "important result" of the Method, he mentions "the general aptitude given the

pupils for the different branches of knowledge and for the various callings." He adds:

"The Method in this respect provides absolutely new resources, which have never before existed; it permits one to judge with a fair degree of accuracy the purpose to which an individual is dedicated, so to speak, by his nature, by the direction of his interests, by the nature of his abilities.

"The child manifests in the course of his education, under the influence of and through the inspiration of the Method, his interests and his powers. He reveals to his parents, to his teachers, and later to society itself, the field in which he can best distinguish himself and most effectively contribute to general prosperity. Clearly appreciating his goal, he is led to fill the place where he can best serve his fellowmen and find the most resources for his own happiness.

"The child, put in contact with various fields of knowledge, as he learns their fundamentals and how his own natural inclinations are affected by them, free to choose and to follow his own instincts and preferences, naturally applies himself best to the thing to which he is most suited, which he enjoys best, which most adequately fills him with a sense of his own powers; he is both happier and more apt for being allowed to choose and follow out his goal. At the same time he has become familiar with the elements of several fields of knowledge, he is able to draw on them for anything which will help him in the vocation which he wishes to pursue."

What shall be done to bring that about?

"A method must be used which exercises the intellectual and moral faculties as they are brought to bear on some art or science, by means of the very elements of this science or art. The cultivation and development of these elements are equally feasible only

in so far as the child has been given knowledge and habits which aid essentially in preparing him and fortifying him for whatever profession or vocation he is destined to undertake."

The speciality he takes up must above all be henceforth bound up with the whole body of economic and mental activities of which it is a part.

"That," says M.-A. Jullien, "is why education must direct the child in such a way that in preparing himself for a given situation, a science, an art or trade, he may be able to conceive them in their broadest relationship to mankind."

"The various tests that every pupil has occasion to make of his intellectual powers enable him first to perceive their more or less clearly pronounced natural destination, and again to determine what use can best be made of them for society in general and for himself in particular; all this provides a solution for a problem of political economy, very important to the social order, to the prosperity of the state, to the true wealth of governments and to the happiness of individuals: *Always to place men in the sphere in which they can be most useful.*"

In other words: "*the right man in the right place.*"

In another chapter M.-A. Jullien speaks at length of this general preparation which results from the cultivation of aptitudes—what we designate by the name of pre-apprenticeship. Let us take this one quotation:

"The pupil at the Institute will then, at the end of his education, be far better fitted than anyone else for employment in any vocation whatever; he will bring to his work more vigour and skill, more intelligence and ability, more conscience, zeal, and ardor for doing well, together with a sort of general aptitude which his first elementary instruction, solidly based and broadly conceived, has given him."

In order to give free scope to the pupils' initiative, the New Schools of to-day have instituted hours of *free work*—obligation to work, but free choice of activity. Pestalozzi had already adopted the word and the thing:

"From eleven to twelve o'clock the pupils, under a teacher's supervision, work at what pleases them best. By means of this practice, which is called free work, the pupils often reveal to the eyes of the attentive teacher their natural talents and tendencies."

Let us then assure the child, along with his technical training, the means of exercising his initiative. Up to seven or eight years, let his manual activity be a play in which he creates as his fancy dictates. From eight to twelve, let him, if possible, "butterfly" as did the pupils at Cempuis—"butterflying" which, however, has nothing in common with the apparent caprice of the flight of the butterfly, since in every shop where he alights he has occasion to learn the rudiments of a technique. If there are not so many types of workshop available (the orphanage at Cempuis was in this respect a privileged school), let every child at least have an opportunity at school or at home to learn the first principles of cooking, sewing, ironing, gardening, the rearing of small animals, tin-smithing or woodwork, so he will know how to look out for himself when necessary, mend his clothes, care for his tools and implements, and repair his house.

It is not until from about twelve to fourteen that he will fix upon one or two trades, so as to acquire a thorough and systematic technique. By that time he can understand the value of a technique and will want to acquire it. It is the age *par excellence* for pre-apprenticeship, the age when it is important to attain accuracy in one's work, accuracy of thinking and accuracy of hand. I have already said that book-binding, book-

boarding, woodwork, and zinc-smithing lend themselves particularly well to this purpose.

Let us borrow by way of illustration a few quotations from the article by M. Ch. Kula contributed to "L' Education".

"Experience has shown," he writes, "that for a boy of twelve apprenticeship should last two years, that this period may be reduced by reason of the age, the health, and the aptitudes of the children, but that it cannot be reduced to less than one year for a child of thirteen.

"The method of general manual training adopted in the pre-apprenticeship shops at the Ecole des Epinettes is as follows :

"The child takes up in turn sheet-metal work (tin-smithing), iron-work, and woodwork.

"At the Ecole des Epinettes particular importance is attached to tin-smithing, which includes the making by hand of a number of articles in common use : tin boxes of all shapes, coffee-strainers, oilcans, etc.

"It is believed, indeed, that this work is particularly adapted to giving the twelve-year-old child a taste for manual work, as well as skill of hand and the ability to work with apparatus and to draw up plans.

"Further, tin being a very inexpensive metal, it is possible to make the child a present of everything he makes. The family is thus kept in touch with the child's daily work.

"It is obvious that a boy who has spent two years at these various types of work under the direction of workmen whose sole object is to train good apprentices rapidly, will be in a position to choose a trade intelligently, and will be able when he becomes a full-fledged apprentice to perform remunerable services.

"Moreover the discipline is strict at the Ecole des Epinettes, the more so as both admission and tuition are free. The pre-apprentice is no longer a schoolboy ; he

is already a workman, he wears the apron and jacket of the workman; he is bound to rigorous discipline, to cleanliness and neatness, to perfect punctuality, to seven hours of efficient work a day, of which five hours are given to manual work and two to drawing, calculation, and geometry."

If he does not conduct himself well he is sent away without more ado. He knows this; he knows that many aspire to his place. Because he has freely chosen this disciplined activity, he accepts its severity. That is pre-apprenticeship.

And this means also that he is learning to honor labor. Respect for labor is not shown by trifling and dilettantism. And, let us add, he must honor the tool. Paul Lacombe, in a remarkable book entitled *L'Histoire comme science* shows the rôle tools have played in the history of mankind. To him who has handled these tools this is one of the most beautiful of stories. He learns there that "every tool is simply an objectified motor habit. Now, habit being to action as generalization is to thought, the tool is the equivalent of the word, that is, the practical rôle of tools corresponds to the conceptual rôle of words."

Finally, work thus conceived reveals to him who has handled raw materials and tools, that other primordial and wonderful tool, the hand. We know that the hand reveals the man. There are people who from the form of the hands can tell the character of their owner. I am not speaking here of fortune-tellers; I have no personal opinion in regard to their science or their art. I am speaking of psychologists like d'Arpentigny and Vaschide, even of serious philosophers like Aristotle and Galen in antiquity, François Mentré and Henri Bergson to-day. And if I did not fear prolonging this book unduly, I should sing here the praises of the hand. "What would man be without it?" Anaxagoras

once queried. And Aristotle answers in his turn: "Man's intelligence has made the hand the tool it is." Which is right? Let us leave it to the mechanists and the vitalists to dispute this subject. Let it suffice us that the intelligent use of the hand is one of the essential things in life, and that if the school and life are to be brought closer together they must first of all extend to each other—their hands.

CHAPTER IV

Social Activity in the Activity School

The preceding consideration of manual activity leads me directly to the subject of social activity in the Activity School. I have already, in fact, made allusions to it. I said that, in certain schools the older pupils made the school materials needed by the smaller ones: educational games, with pictures pasted on little cards for lotto and other home games; wall placards, pasted on cardboard or cloth; sketches enlarged from illustrations in books and coloured, collections of objects from the little ones to sort out, wooden form-boards made with the scroll-saw, boxes, wooden or paste-board cases with sliding drawers used in the collecting and classifying of documents, and many other things dictated by circumstances and needs.

This interchange of material help is paralleled by assistance of an ethical character. The institution of the little papas and mammas at Cempuis will be recalled. This has proved very effective. I could not say which profits more from this relationship, the little protégé or the little protector. The protégé is thus not simply a number among many others in the large school where the adults have much to do and cannot always listen to him. Now the expression—so natural and so necessary—of his little sorrows, of his joys and interests, is one of his real needs. Thus he is among friends who look after him and comfort him; he feels he is part of a little family, and his fledgling instincts respond and grow.

If we stop to consider that in many large families the older children have almost complete charge of the younger ones, that their solicitude is often very great, and that it would be far more effective if they were guided and enlightened as to their duties, we shall realize that this activity fits readily into the natural frames of the Activity School. But delicate handling is necessary. We must not entrust any little one haphazardly to any older pupil. If the spontaneous sympathies are to serve as the teacher's general guide, he must consider first of all the ethical effect of the larger pupil on his protégé—and *vice versa!* Will it be objected that this moral training, which requires constant watchfulness on the part of the teacher, will cause a considerable additional burden of work? It will be an additional burden at first, I will admit; but the burden will be lighter afterwards, especially if the teacher knows how to get the older pupils to help him. Why not establish a hierarchy here also, with officers of public welfare, in part relieving the teacher in his task of "big father," inspirer and counselor? The patriarchal family, too, involved a hierarchy of offices. And just as there was formerly an imperceptible transition from family to society, the tribe being an enlarged family and already an embryonic city, so the school, particularly the boarding-school, can proceed from "tolerated authority" to the more complex régime of the city—that of increasing pupil self-government. I shall speak of this point again.

Mutual aid in the school was known in the last century, especially under the form of mutual teaching. This was carried very far in the educational system of Père Girard at Fribourg. A childhood friend of Pestalozzi, Père Girard had had an opportunity to ascertain the favourable results of this institution at Yverdon. May I say a few words about it here, and show how these two humanitarians conceived it?

From the time when he gathered about him the orphans of Stanz, says M.-A. Jullien, "Herr Pestalozzi, wanting to organize domestic life and to make it the basis of development and instruction, adopted first, as an executive device, the habit of having the children help each other and instruct each other. This idea appealed to him the more as he himself had no one to aid him and as he felt the imperious necessity of training collaborators..... He placed the children at table and in the classes in such a way that one of the more thoughtful and more advanced pupils came between two others less able, to watch over them and show them what he himself had learned. The favourable result of this first experiment disposed Herr Pestalozzi to give more scope to his conception and made him feel the advantage it would be to make this a general principle in education."

It is thus that the normal school at Yverdon came into being. Everyone should read with what patience and painstaking the educator proceeded. Later it was charged that mutual instruction led to the teaching of errors by ignorant pupils. This could not have happened with Pestalozzi's procedure.

"My principle in everything I did," he himself writes, "was to pause at even the most insignificant details, until the children knew them perfectly."

Why, then, should it occasion surprise that the little teachers trained by him were able to teach what they had learned to the younger pupils, to strangers, even to adults who came to Yverdon to study the Method? But it should be noted that the family spirit of mutual helpfulness and simplicity which ruled at Yverdon made not only possible but efficacious the use of a method which it would have been rash to generalize unduly. Unfortunately this is precisely what too many educators have done, thinking they were following Pestalozzi: they did not take sufficiently into account the lack of

psychological maturity of the children or adolescents, nor the constant supervision which must be exercised over their activity. They had them teach too many and too complex things to too large a number of their fellow-pupils. Whence the discredit into which the method has fallen, very well justified in view of the abuses that had been provoked.

At Yverdon these abuses were avoided.

"One may say in this connection that, in the choices that were made, and in the wise precautions that were taken, all the pupils called upon to fill the rôle of teachers have acquitted themselves well and have succeeded in a task which was always carefully apportioned to their powers..... This mode of mutual instruction established a sort of interchange, of communication, of mutual help among the children, which prepared them for practical morality when they should attain man's estate... The bonds of friendship are strengthened among the pupils. They are accustomed to help each other in all their needs and activities, in studies, services, games, in all the circumstances of life." As to the intellectual benefit, "the mind is fortified and penetrates more deeply into the most significant ideas it has received. It must mature them, digest them, assimilate them in some degree to its own substance in order to reproduce them with force and fidelity. One is obliged to understand thoroughly and to examine deeply into the things one wants to explain and elaborate. One is often better taught by teaching others than in learning for oneself. By teaching, I learn, says an old adage. One can never teach well what one has merely learned by heart; that is absolutely impossible. But what one has succeeded in finding out for oneself, one can reproduce in order to convey it to others."

"No comparisons with other pupils," says the author of *Emile*, "no rivals, no competitions even in

running, as soon as he begins to think for himself; I would a hundred times rather he did not learn the things he would learn only through jealousy or vanity. Only I shall note every year the progress he has made; I shall compare it to what he will accomplish next year; I shall say to him: 'You have grown so much taller; there is the ditch you jumped over, the load you carried; this is how far you threw a stone, how far you went on one breath, etc.; now let's see what you can do.' I stimulate him thus without making him jealous of anyone. He will want to surpass himself, he is compelled to; I see no disadvantage in his competing with himself."

Rousseau's exaggerations were understood by Pestalozzi, who, by his practical experience, was closer to reality:

"Emulation is natural to man. It leads the child to make efforts to excel his comrades in obedience, in docility, in application, in virtue, in talent. It inspires a noble desire to equal those who do best, to perfect himself in every way. What we must carefully guard against in public education is the corruption of education —rivalry which is inimical to the success of others, which oftenest is stimulated only by corrupting and vicious forces....."

However, at Yverdon, "the child does not seek to compare himself with others; he feels within himself whether he has done well or ill, according to what he is, according to his own nature. It is unfair, indeed, to measure a child against others; each has his own powers; all that can be asked of him is that he use them well."

Père Girard of whom I have already spoken, had said:

"But the prizes were given to all children who had fulfilled certain predetermined conditions. None could cast a look of envy at a companion who, he

thought, had taken the prize away from him. In theory, all could win it. The condition imposed for receiving a token of merit was not to have been *the first*, but to *have done well.* The difference between these two formulas represents the difference between the intention to do well, which is the source of all progress, and the desire to be first, which is the product of artificial rivalry. This desire is but too lively in children, as in adults; a well-guided education must not stimulate it by making use of it, but must on the contrary combat it in the interest of individual and social happiness."

I just spoke of mutual aid in the school. We may also consider the matter of mutual aid carried out by the school beyond the confines of the school itself. Everyone knows how widespread this form of activity was during the war, throughout Europe and America. A very considerable number of articles—clothes especially jackets, sweaters, socks, slippers, leggings, gloves, mittens, etc.—were made by schoolchildren for soldiers, prisoners, refugees, the destitute. I know that this activity is kept up in many schools. Why not in all? There is no lack of distress to be relieved!

Distress far away and near at hand, permanent and temporary—he who lives close to his fellowmen finds every day a service to render, a helping hand to give. The spirit of mutual aid, if it has taken root, creates a lasting bond amongst people, a fruitful and beneficent bond. Here again the influence of the school, when it is able to create this spirit, remains with the pupils far past their school years.

I wish to cite here a few instances of this work, one from a New School, another from the work of the Saint-Vincent de Paul societies, and a third from the Boy Scouts. They show what children and adolescents can do when they are inspired by the principles of the Activity School.

Here first of all is what the pupils of the New School at Hof-Oberkirch decided upon and carried out:

As a result of some talks given by visiting speakers—in particular on the philanthropic activity of the Salvation Army—the pupils decided to support this work. But where was the money to come from? For ten days they gave up meat, and the savings thus effected were divided between the Salvation Army and the Union Internationale de Secours aux Enfants, at Geneva. This free decision of the school community, in view of the present price of meat, brought these two organizations several hundreds of francs.

An officer of the bureau which cares for the poor in the city of Zurich having spoken of the fight against pauperism, the pupils started a "poor chest", which consists simply of articles found.

It sometimes happens that poor peasants—a mother whose husband is in the service, or the victims of some sudden disaster—see a gang of young workers come for the hay-making, and acquit themselves very creditably.

Some of the classes have "adopted" destitute families. In order to reëstablish one of these stricken families, one class made a whole set of furniture. At Christmas time the distribution of bread and of milk was carried on for several days.

This social service has led to the study of living conditions. Thus two classes gave a whole day to studying the organization of a poorhouse and an orphanage. They took their meals with the inmates of these two institutions.

Such has been the social work done in the past few years by the pupils at Hof-Oberkirch. Herr Hermann Tobler, who at my request informed me of what was being done, adds:

"We are convinced that if the public schools put themselves in touch with the bureau in charge of aid to the poor, they could, through well-organized work, contribute much to alleviating the ills which weigh on the unfortunate. I would point out in particular *the cultivation of marshland*, whereby they could do much to aid the destitute."

As a parallel to the social service work done at Hof-Oberkirch, I adduce the work of the Saint-Vincent de

Paul societies, at Paris and elsewhere.

"At adolescence the cultivation of the sense of pity must begin," writes M. J. Wilbois. "That is what the Christian educators have been attempting for a long time; for instance, the Saint-Vincent de Paul societies, which profit those who give as much as those who receive. However limited their activity, nothing can replace them. Then take your children into the homes of the poor, and there teach them to give not merely of their money, but of themselves. The first time a schoolboy in some wretched lodging helps an urchin at his lessons, or an old woman to wash her windows, no matter how simple the act he will retain an ineffaceable impression from it. There are baths of misery which are baptisms."

But a day is coming, adds M. Wilbois, when it will be necessary to go beyond this stage of mere pity to that of active goodness, to the creative mutual aid rendered by positive organizations.

The third example I want to give is taken from the Boy Scout world. I need not describe the Scouts here; everyone knows of them. Everyone has read Baden-Powell, the most illustrious representative of the Activity School outside of the school itself. "Be Prepared"—"Do a Good Turn"—these magnificent devices of the Scouts tell more about them than any amount of discussion. Further, everything in this system, so perfectly adapted to the innate character and tastes of adolescents, is in the spirit of the Activity School: their advocacy of ingenuity, of experience in getting out of difficulties, the art of making the most of a situation, the numerous handicrafts learned, exercises in observation, self-government, etc. The facts themselves are more eloquent than any theoretical discussion. That is why I wish to give here a concrete example, so eloquent by itself that I may dispense with all further comment.

S. G. P. Centanini, assistant director of the Committee on Publications and Department of Publicity of the League of Red Cross Societies, writes:

"In my opinion, amongst institutions of recent date, there is none in the south of Italy which has proved so effective as that of the Boy Scouts. In the Avellino district I was convinced, especially during the influenza epidemic, that the aid of the Boy Scouts was essential to such a degree that I doubt whether, without their collaboration, I could have brought to a successful conclusion the campaign of aid undertaken in the month of October, 1918. Even in certain provinces, as that of Avellino, where, as a result of efficient operation of the public bureaus, good-will was not lacking, the Boy Scouts took complete charge of milk distribution. It was a question of supervising the personnel and the soldiers put at our disposal for this purpose, and especially of checking the requests for milk and for aid. The Boy Scouts did not hesitate to take charge of house-to-house visits, in order to make sure of the real condition of the applicants, that is, whether they were really indigent, stricken with influenza, etc. (The living conditions there are terrible; families numbering up to a dozen persons live in a single room unlighted and without ventilation, and it was not healthy at that time of the year to make house-to-house visits of that type).[1]

This service provided by the Scouts is as it were a sketch of the rôle played by the visiting nurses. At a time when the gravity of the epidemic had completely disorganized public life, the Boy Scouts did not lose their heads, and I was surprised at their spirit of organization, which was kept up during all this period; I attribute it to the habit of discipline. The spirit of

[1] These 'abnormal' conditions are practically 'normal' in India! (Editor).

integrity and justice they manifested also deserves to be recorded: all abuse or favoritism was reported to me by them. The centers of the Avellino district in which organization of Boy Scouts existed were the ones in which the scourge was most quickly conquered. I do not hesitate to attribute to the Boy Scouts a large part of the results obtained.

"I have also used the Boy Scouts for the training of the wretched and abandoned children who infest the streets in the south of Italy. They were taken from the streets, and the Boy Scouts were commissioned by us to discipline them; they carried them off for daily exercise, open-air gymnastics at fixed hours, walks in the vicinity, moral training by example, etc. This was successful to such a degree that when the American Red Cross in Italy ceased its operations, the city of Avellino, supported and encouraged by the prefect of the province of Avellino, voted the continuance of this institution."

From these few examples, which could be extended indefinitely, it is obvious to what extent the spirit of the Activity School, when it is well directed, can and will lead children and adolescents more and more to make this joyous gift of self. For, as Prodinger has well said, "*the generous and active gift of self is the solution of the social question.*"

One attempt to apply this solution has been to seek an outlet for youth's love of activity in terms of public usefulness. I wish to speak of the first experiments in social service made in Bulgaria. I can speak of it only by hearsay, but it has been painted for me in very attractive colours. A former prime minister and a former minister of public instruction of Bulgaria have both assured me personally that the account is true. First of all, two institutions must be distinguished: 1.—The civil mobilization of young men and women of

eighteen to twenty years of age; I shall not speak of that here, as it lies beyond the scope of the present work. 2.—The "school week of compulsory work" which teaches all primary and secondary school pupils. Its purpose is indicated by these notices which appeared in the newspapers in April, 1921:

"*A school week of manual work.*—By order of the Bulgarian Minister of Public Instruction, the school calendar includes henceforth a week of manual and agricultural work obligatory for all Bulgarian school children. The principal tasks required of these children are the following: cleaning and whitewashing school premises; leveling and paving school grounds and gardens; leveling of play-grounds; repair of school furniture; binding of books belonging to schools and reading rooms; the making of school materials, cards, etc.; repair of doors and windows of school buildings; cultivation of vegetables and flowers in the school gardens; planting trees around schools and libraries; replanting; repair of the streets leading to the school; archeological excavations."

Some weeks later there appeared the following account of the first results of this curious and fascinating group experiment:

"The school children of all Bulgaria have set a perfect example to adults by showing them with what zeal the obligations of public service should be fulfilled, and what results may rightfully be expected of it when a common task is performed with pleasure, animated by the love of work and the consciousness of duty. I have myself seen little children carrying in sackfuls of pebbles and sand for their school yard, spading to level the garden, and even making pecuniary sacrifices to buy materials for whitewashing the corridors and classrooms. This washing, cleaning, and whitewashing is done joyously, with the knowledge that their parents would

approve—and many of these children have never done such things in their own homes. The children themselves, during the visits I made to the schools, thanked me for this opportunity to do manual work.

"The week of compulsory work was welcomed and carried through with real delight by teachers and pupils all over Bulgaria.

"The enthusiasm with which the youth welcomed my orders was so contagious that even the schools which are not subject to the Department of Public Instruction requested me on their own initiative to be allowed to join with us. The schools of other faiths (Turks, Jews, etc.) did the same. The Turkish school committee at Choumen wrote me asking that the Turkish pupils and teachers be permitted to join the Bulgarians. Naturally I consented with pleasure. That was only one more proof that my orders for the week of compulsory work were opportune.

"The material value of what was done can be set at a hundred million *leva*, but much more important still is the pedagogical and educative value of the work of the youth, of public work in common, of physical work in the open, and of this general enthusiasm of the pupils."

And another minister declared:

"The teachers with whom I have had occasion to talk cannot find words to describe the astonishing energy displayed by the pupils, large and small, during this week of manual work, in trying out their strength and in proving their ability to bring order everywhere.

"In the cities and villages there is now scarcely to be found in the schools a yard or garden such as were formerly to be found—rough, dirty, and covered with mud and filth which poisoned the children with their miasma.

"Now these school grounds are level, clean, set to trees, and covered with sand which the pupils themselves brought from river-beds some distance away.

"Gardens deserted and neglected for years have been cultivated, seeded, cleaned as never before."

The same newspaper passes in review the results obtained by the work of the school children at Sofia. From the long list it publishes, we take the following details:

"The pupils of the second gymnasium for boys proposed to repair and decorate their playground, situated between the infantry barracks and the Alexandre hospital. They dug a ditch around it, a meter wide and 1 meter 20 deep. The surrounding grounds were enclosed with a fence and a quickset hedge. A place was set aside on the drill-ground for gymnastic exercises and for football. The grounds outside the enclosure were plowed and planted to flowers. The walks were bordered with newly planted shrubs.

"At the third gymnasium for boys, groups of workers transformed the grounds all about the establishment into a remarkable garden; this they decorated; by order of the president of the Council, who visited the gymnasium, an adequate supply of plants and shrubs was put at their disposal.

"The pupils of the Fodor Mincof School dug a ditch all around the school. This ditch, for drainage purposes, is 65 meters long and half a meter wide. Parallel to this ditch a walk 65 meters long and two meters wide was constructed.

"At another primary school the pupils transformed the school yard into a very beautiful garden. Shrubs were planted between the paths, soil and fertilizer were brought for the borders. Paving stones to the value of 280,000 leva were used in paving the square in front

of the Maternité. The work itself would have cost not less than 20,000 leva.

"Another primary school furnished contingents of little workers who helped in the work of leveling the school yard.

"Finally the pupils of the 'Dimitre Petkoff' school made a park of the grounds surrounding the school and plowed about four acres."

Is this idea not original and full of promise? It remains to be seen whether this institution will take root and be perpetuated. It would be interesting to see this work going on. How many of these "school weeks of compulsory work" are there in the year? And how does the teaching body take to it?

It remains for me to speak of discipline. How shall we conceive discipline in the Activity School? There is no need to repeat what has been said and said well by the forerunners of the New School. Without going back to J.-J. Rousseau, since I have already quoted from him several passages which show his attitude toward this important problem, I shall quote once more from Marc-Antoine Jullien, the faithful and clear commentator on the frequently obscure author of *Leonard and Gertrude*—and *How Gertrude Teaches Her Children*. One feels that M.-A. Jullien has drawn from very stimulating source material.

"The pupil," he says, "must, so to speak, feel at every moment his *dependence* and his *liberty*. He must feel his *dependence* as he discovers reason and goodness to be personified in his teacher, who represents, in subject-matter and in the manner and order in which he treats it, the invariable laws of nature to which he is absolutely obliged to submit. He must feel equally his *liberty*, because, arbitrary decisions being excluded from the rules that are imposed upon him, he follows solely the laws of nature, independently of the caprices,

the prejudices, and the limitations of mind and heart of those who guide him.

"The Method places the child and the teacher in such a relationship that both are subjected to the same laws of necessity; that the teacher, as well as his pupils, obeys the force of things, and gives them an example of this obedience; that he never demands of them anything but what is evidently just and necessary, what grows out of the matter they are treating together, or out of the situation in which they find themselves."

Here then is a clear statement of the problem. On this basis, how is discipline to be handled?

"Discipline must not be the result of a changeable, variable, arbitrary will, but the necessary product of the child's natural condition, of his needs, of all the relationships in which his outer life places him."

That means, in other terms, that he is to be formed by the sanctions of experience.

"Everything which makes the child happy or unhappy, everything which he regards as a penalty for having done ill, or as a reward for having done well, must be a natural consequence, an immediate effect of his actions. Education imitates the ways of Providence, which ordains that, in the natural order of things, man is punished for his own faults and reaps the reward of his good conduct. *One must never*, says the author of "*Emile*," *inflict punishment upon children as punishment; but it must always come to them as a natural result of their bad action.*"

Does that mean that the raw struggle for existence shall regulate the children's relations to each other? By no means:

"This plan is carried out in such a way that the conflict and friction which occur among them never degenerate into injustices, passions, hateful or malevolent rivalries, but involve, on the contrary, all the advantages

that one may rightfully expect of them. The daily inner life, the immediate reciprocal relations of the pupils, are at once the source and the essential means of discipline.

"The method rejects absolutely all arbitrary rewards and distinctions, which can but do violence to the moral sentiments, feed false pretensions, and awaken self-love, vanity, and pride....."

"It has a great influence on the child's inner moral nature, because it imposes nothing from without."

"In this respect the discipline is not only *negative*, or a means of guarding against faults, but essentially *positive*, or a means of creating and developing the seeds of virtue."

"The essence of this simple and touching discipline is perfectly expressed in a single touch the Bible gives us: *God saw everything that he had made, and, behold, it was very good.* Thus the pupil of the Method wants to act and to produce, and can be content with what he has done, or be pleased with his own handiwork. Therein is all the inner spring and the principle of discipline. The means of execution, in harmony with the spirit of the Method, consists, in the same respect, not in reasoning with the child on vulgar notions of the dignity of man, but in inculcating in him the feeling for this dignity, through the example of those around him, and through the habits of his daily life."

These following pages, quoted almost without omission, could be proposed as the breviary of teachers in the Activity School:

"Regularly the pupil is subject to a discipline which is rigorous and invariable, but salutary and anything but irksome or servile, since it grows out of the very nature of objects and activities which have been rendered pleasant to the child, and which he recognizes to be necessary for his improvement and his well-being; but in the hours of recreation he is left to himself,

entirely free, in order that he may discover his talents and his inclinations. As this liberty permits him to manifest his character in its entirety, the teacher, who takes note of all that strikes him, is thoroughly acquainted with the leading tendencies of each of his pupils; the vicious tendencies he can combat early, indirectly, with gentleness and with success.

"It is then above all in the games for which they themselves make the rules, as it were by instinct and through the natural need of justice which governs their mutual relations, that the children develop, that they form and fix their moral character; in this field nothing can supplant public education. Forced to adapt themselves to others and to bring their wills into harmony, they are constantly experimenting upon themselves and upon their companions. They judge and they are judged. They use all their natural means, all the resources at their disposal, to reach an end. They study how to deal with other minds, how to persuade the wills of their companions. They know how to yield at the right time, in order to obtain in their own turn what they want. The inevitable and necessary conflict and friction take place, as likewise mutual helpfulness, the organization of individual powers, the combination of energies, the constant action and reaction which serve to prepare the child for man's estate and for social life. Each of them learns to adjust himself to circumstances and to men, to bend his will, to yield to the force of necessity. They acquire a sort of moral liberty, drawn from the control they exercise over their inclinations even as they satisfy them, well knowing they are free to satisfy them. Each pupil chooses his own friends among his companions; he becomes social through his relations with them. The spirit of the Institute is a sort of providence, under whose guidance the children create their own society. It is especially in their re-

creations that the observer may find curious and interesting subjects of instruction and of meditation, may study the human heart, may learn to appreciate distinctions in different characters. Each one here takes the place which nature assigns him. All his merit is in himself; his value is individual. He is nothing more than exactly what he is worth in terms of his own powers and skill, of the sentiments of love, confidence, esteem, and respect he is able to inspire. A natural exquisite tact, a sort of delicate and sure instinct, which is to be observed in this respect among the children, takes care that it is always the purest, most impartial, and most rigorous justice; it is true dignity, the real and personal merit of the individual, which under all circumstances determines superiority. In this connection the Method requires the teacher never to intervene as a teacher, or to exert authority; that he respect the free impulse of nature; that he hold no rank among the pupils because of his status or his duties, save that which, like the children's own, is due to his superior abilities, his own qualities, the confidence and friendship he has merited and obtained."

Are not these pages remarkable in their simplicity and thoroughness? To respect the free impulse of nature, insofar as it is good, is this not the chief principle we recognize, the principle which must be the basis of all education worthy the name? And is not this civic training provided by games where the pupils "themselves make the rules," the first step toward student self-government, which is coming more and more into use in the Activity School? Finally, this "rigorous discipline growing out of the nature of things," and recognized by the child himself "as necessary to his development," is precisely what has been conceived by those who are most experienced in the methods of

the Activity School, as well as by the theoretical students of child psychology.

Indeed, Pestalozzi, despite his reputation for impracticality, despite his empirical methods, was a great, a very great intuitive genius. It may be objected that this is a truism. So be it. There are those for whom this is merely a casual statement. But to him who is concerned with the Activity School it is a cry which comes from the bottom of the heart.

I just now used the word self-government. The new education in the field of social education tends toward moral self-government. And since that is the goal of the experiments and the very principle of the Activity School, let us conclude this chapter with a discussion of pupil self-government.

According to its invariable principle, the School which respects the spontaneity of the pupil does not impose from without a moral system built of formulas which would be only a cultivation of the surface. Still less is it content with empty verbalism. Only by working at the anvil can one become a blacksmith. Only by being responsible for the school social order will the pupil later know how to face in their true light the problems of his country's political order.

Ability, knowledge, and will,—these three properties constitute sovereign perfection, Abélard declared in his *Theologia Christiana*. It is not enough to be able to do the good, if one does not know what it is; it is not enough even to know the good, if one has no opportunity to do it; we must proceed, as we should say to-day, from thought to action. Experience has a two-fold function: it reveals the real difficulties which the external world, natural or social, opposes to the will, thereby confirming or invalidating knowledge; but it also reveals the scope and limits of the power within. Only he who has willed knows. Only he who knows

is truly capable. Indeed, the virtue of experience cannot be prized too highly.

In view of these considerations, the Activity School gives no *ex cathedra* course in ethics, but it strives to create a social environment which will give its pupils real experience. To work together, not merely side by side but in collaboration, to watch together over the successful progress of a little social organism, is the best way to develop the social sense, without which all moral training is valueless. It is worthy of note that within the school community there is realized the goal of all educators since Rousseau and Spencer, a goal that has not been realized in our schools for lack of appropriate means: the natural sanctions replace the artificial sanctions, education takes the place of mere training. Give the pupils control of the public order, which they must have if there is to be effective collaboration, and at once they will begin to stand up for the proper means of safeguarding it. An embryonic legal code will grow out of the experiments they make. The adult or the pupil who administers the law will be able to carry it out rigorously without his action being interpreted by the guilty as personal vengeance, or an arbitrary act of the stronger. On the contrary, the dispenser of justice will himself pass into the background; he will become merely the representative of impersonal law, not law which is endured of necessity, but law agreed upon and wanted by the good citizens. This single consideration is worth all the courses in ethics in the world.

But the matter goes still further; freed of the police duties which interfere with the sequence of ideas during lessons as well as with the friendly confidence which should be established between him and his pupils, the teacher will be able on the strength of this newly won confidence to act directly on the minds of the young people, to lead them to reflect on their actions,

good or bad. Let us guard against making this a sterile analysis of the theoretical motive of action. Analytic attention must give way to synthetic attention. The whole organism, without the participation of consciousness, spontaneously co-ordinates and integrates all the means for attaining an end which alone is perceived by the mind; and similarly when conscious attention is fixed on a moral end, all the subconscious powers of the mind participate in the process. The conscious mind is not aware of this participation. If it were, the integration of the subconscious forces not only would not be better, but perhaps would not occur at all. If a man who is mentally adding large numbers thinks of how he does it, he becomes confused; and the same is true for any case of voluntary concentration. Indeed, attention is to the intellect what effort is to the will; a means of focusing the mind's powers. But living powers must be focused on the end in view, not on the means to the end. That is what I mean by synthetic attention.

In organizing pupil self-government, the Activity School then liberates the adult from the burden of discipline. Instead of being an absolute sovereign, the teacher becomes merely the representative of the executive power. It is allowable for him to sympathize with a child he punishes, to help him find out how to avoid repeating his fault. He is free to instruct and to educate. The subtle league which, almost everywhere, tacitly unites the pupils as a body against the teachers, has no further excuse for existing. In a trice relations are established on a footing of confidence. When trouble comes up the parties to it have recourse to the teacher as to a beloved judge. If he is a real man, affectionate and just, and not merely an instructor, he is sought out as the most experienced friend, ready with aid and encouragement. In the classroom it is he who

opens up before the pupils the fascinating prospects of knowledge.

Thus the first advantage of pupil self-government is that it liberates the teacher. In the second place, it liberates the pupil from the personal control of the adult and places him under the control of his own moral consciousness. That process is not without its stresses and difficulties. But the crisis is necessary. If the young child is to grow beyond the realm of authority exercised from without inward—as it must be while he is very young—and reach the dignity of man's estate, acting as a free social agent, he must have an opportunity to grow. The teacher's disciplinary influence must pass little by little into the background, so that his moral influence may thereby be increased. The social environment should present a thousand instructive opportunities for becoming acquainted with the world and man, with good and evil. If adult control is continued too long, there is danger that some children will become too dependent. With years pliability of character diminishes. Finally the power of reacting and adapting oneself to the experiences of life is lost. The habit of depending on others destroys independence. As for bad and rebellious natures, they are better off in this respect, for they are temperamentally protected against the weakening influences of adult control. But a positive capital of life experiences amidst the hazards of the environment is not to be had without the illuminating influences of older people—with the teacher's aid and influence, but also in opposition to it!

True morality is a conquest of self. Once more, it is not a body of precepts inflicted from without inward, but a growth which manifests itself from within outward. And that is true not only of what takes place in the depths of the individual soul, but also of the very organization of the school community, as I propose to

show later on. Masters of themselves, the pupils will be masters also of their little republic. Electors and elected will take their rôles seriously. It has often been observed that the little citizens prefer to be punished by the leaders they have chosen rather than by their teachers. It has also been noted that those elected to office acquire a practical sense of social responsibility which is for them a powerful moral lever. To regard school work not from the point of view of the governed, but from that of the wielder of power, is civic education far superior to that provided by the very best of text-books. Just as it occurs in political maneuvers in our civilized nations, I have myself seen young revolutionary leaders in little school republics become moderates when they came into power.

There is thus formed a social consciousness which is echoed in the individual consciousness of the best pupils. He who has become master of himself, of the divergent forces in his own being, will wish to become master also, in the name of the community, of the divergent forces manifested in the social environment. To that end he will ally himself with the best of his fellow-pupils to fight against the ferments of disorder. The result is that, if he comes in collision with wills opposed to his own, he meets with other pupils working for the same ends for which he is working, and combines forces with them. Soon he knows what he can do and what he cannot do, what must be accepted and what should be fought against. And I do not refer here merely to the oratorical talent which is developed by the need of defending one's own opinion in public, of knowing what one wants and expressing it clearly, of foreseeing and refuting contrary opinions in advance. The young citizen soon learns that the rights of each one are limited by the rights of all, in other words, that each must sacrifice a small part of his liberty for the

social good. He soon realizes that the community progresses only as each works for the good of all and that rights have value only in so far as they serve as the basis for fulfilling obligations. He discovers for himself J.-J. Rousseau's principle of the social contract.

To liberate the teacher, to liberate the pupil, to liberate the State,—these three things can be accomplished by the system of pupil self-government. It remains for me to develop this third point. When the State is in the grip of mutually destructive elements it is not free, just as the individual is not free when his idealism, his *higher self*, is held in check and thwarted by the caprices, whims, and passions which prey upon his mind. The same is true of the school State, which must be an embryonic stage of the nation, and must train citizens for it who are worthy of the same.

If it is true that progress is born of experience, of pleasure in succeeding and pain in failing, it is contrary to common sense to substitute the teacher for that great educator, life. Let us all the more guard against ill-timed intervention, in view of the fact that if this civic education does not take place at school, it will not take place. The state is too large, too vast, too complex, it is the prolongation of a past too rich in a thousand currents we do not know of, for us to expect from it directly an educative influence in training for citizenship ; it would take a lifetime of prolonged studies in political and economic science really to comprehend the forces at work. We should, then, be assuming that the child had already acquired this experience, when his very object is to acquire it.

On the contrary, the school environment, small as is its scale, is the crucible *par excellence* for social experience. In the school community division of labour and effective coöperation are, so to speak, visible and tangible. Everyone knows everyone else, and sees

how his neighbor acts. Poorly constructed laws show their imperfections at once. Errors are due to oneself, or to all; other political parties cannot be blamed for it. Beneficent order following after disorder is appreciated immediately, and everyone breathes more freely, The work of each for the good of all, of which I just spoke, is felt to be indispensable; anyone who failed in his duty would instantly cause a disruption of the social machinery.

I have often had occasion to make careful observations of school communities in Germany and England and to note their success. In France, the system of pupil self-government has been pushed too rapidly. The experiments begun by M. Roger Cousinet in 1910 have, in general, failed. There are, I believe, two principal causes for that failure. *A priori* general experience was made the basis of the procedure. The forms of government were chosen in advance. The astonished pupils were told: "See here; we are going to do this and that, you will elect twelve representatives, who will share the duties of supervision and order. A routine will be established, so that each will take his turn....." That was to kill the goose that laid the golden egg; it led inevitably to failure. The success of the scheme in some particulars appears to me however as a striking confirmation of the excellence of the system of self-government. If under such bad conditions some of the results were good, what could not be done if one proceeded "organically," that is, progressively, simply suggesting the idea of self-government within certain limits to the oldest pupils, to the natural leaders, and leaving it to them to persuade the others, to organize themselves, to try things out and experiment?

But even this experiment would be fruitless under present conditions. It is hopeless to work for moral education which operates from within outward, where

intellectual education clings fast to the present method, that is, operates from without inward. The inverse proposition would also be true: the organic growth of the mind, as I outlined above its principles and their application, could not be produced in an environment where the old discipline of the rod prevailed, the discipline that makes use of coercion, threats, arbitrary punishments, which elevates the teacher to the position of monarch or even despot. If active and personal work is to come before everything else, it must also play its part in the realm of pupil self-government. One will not work without the other. But when are we going to replace the present abstract lessons and coercive discipline with the spontaneous intellectual cultivation and the discipline which common sense demands from the standpoint of child psychology? When are we going to put into practice this method for which our own age is calling, our age which, with its great need for virile and strong personalities, is now provided by the traditional school factory with so many rigid manikins and poorly articulated puppets?

CHAPTER V

Intellectual Activity in the Activity School

Our pupils learn nothing of life, for their teachers do not prepare them for life. Moreover, could they, on the whole, do so? Life alone teaches life. We do not bring up children, I have said; they bring themselves up. Our chief function is to create the environment in which they are enabled to grow up; our next function is to guide them. But nothing save the variety and richness of this environment will enable the child to vary and to enrich his life experiences, to differentiate his powers, to integrate his will and his intelligence, to bring himself up by means of his gradual adaptation to the world, of his gradual adaptation of the world to a superior ideal. It means nothing to say that our schools bring their pupils a rich body of experience, the whole past experience of mankind; for the school does not offer its material freely, but imposes it. And even a mere animal, when it is not hungry, will spurn food that is thrust upon it. Constantly, from the very first, the traditional school interferes with the new creative activity natural to the child, the activity he is allowed at home before he goes to school, and which is his way of being normal and natural. In place of it the school substitutes prematurely systematized activity, forcing the ready and direct knowledge born of experience to give way to a factitious culture developed by mechanical school work. Certainly, mechanical work possesses an educative value, but only under the condition that it provides for the natural predispositions and sets the inner

creative forces at work. Now work is creative only when the mind makes a synthesis of old and new material, when it establishes connections between the old and the new in order to create a superior unity, either a pure idea, or an idea objectified in a visible and tangible form. The intention to create something coherent, discipline with a view to this end,—that is what distinguishes creative work from simple play. Moreover, work which is worthy of the name leads to a veritable thirst for knowledge. As new experiences enter in and are related to previous experience, a process of intellectual assimilation goes on. Then, but then only, the human knowledge which the school brings is welcome. We are then driven to this conclusion: the child must go to the school of life.

I

The school and life! These two terms are irreconcilable. Our civilized life is too complex for the child, too far beyond his reach; he cannot be the good savage he wants to be and should be at his age. A simpler life, a kind of embryo of civilization, would be desirable. Can the school provide it? To a slight extent only, as I have indicated. And if life cannot come to the school—no matter; the school, in the methods it uses, must go to life, must put its pupils in touch with life by giving them what is within their reach. Let me indicate the steps of this creative process of acquiring knowledge.[1]

1. The pupils will go out to observe the world of nature and of man in order to *gather documents* there.

[1] Detailed examples of how this method is worked out are given in the author's "The Practice of the Activity School". (Editor).

What will they go to see together? Factories, workshops, stores of all kinds, public utilities (water, gas, electricity, telephone, railway)—I cite at random—day nurseries, hospitals, public kitchens, interesting geographical materials of the region, historic monuments, museums of all sorts, particularly ethnographic, and above all nature with all its vegetable and animal wealth, —these are the child's great book, from which pages suitable to his understanding will be selected and suggested for his study. All of this material, in addition to the reading of books and scientific journals with or without illustrations, must, I repeat, provide the pupils' source materials. These materials are collected with the aid of drawing, writing, cutting out pictures and articles, even of the collection of small samples.

2. Next, this material is *classified*. It is put in special envelopes with distinctive headings which relate to the programme of studies, and which indicate where things may readily be found. This classification, which may seem commonplace to us adults, may seem not to require very much mental effort, is real work for the children. But they do it with pleasure. Their natural liking for collecting and sorting things is well known. Some spontaneously collect and sort small objects, stones, curiosities of all sorts; others, especially the older ones, collect stamps and spend hours classifying them and pasting them in albums. It is just this sort of work to which the Activity School invites its pupils. Instead of stamps, the materials of which I spoke will be classified: pictures, drawings, photographs, postal cards, articles from the journals, sheets of paper bearing quotations, observations, summaries, etc. As will be evident in a moment, the envelopes and portfolios used—and made by the pupils themselves—bear general headings for every conceivable subject, so that everything may be filed where it belongs. But it often happens that this

or that envelope is full to running over. What then? The contents are subdivided under a suitable number of less "extensive" and more "intensive" headings. Thus the envelope "alimentation and animals," which deals with the need of food and its satisfaction in the animal kingdom, can first be subdivided into "food of animals" and "food of man." Then, when the envelope containing material under this last heading is full, the same procedure will take place again, new subdivisions will be chosen: the cow, milk and milk products, eggs, honey, butcher's meat, game, fishes, animal oils, etc. Thus in the first place, the child always learns where to put whatever material he finds; and at the same time he learns—empirically, and without having to be told to reason the thing out—that all progress involves differentiation (the multiplication of his envelopes), integration (the logical organization of the most general headings), and relative values (the intermediate heads constituted by the cardboard boxes which contain his series of envelopes).

3. Last comes the *elaboration of this material.* We have before us collections of written and printed text, drawings, and various odds and ends gathered without order, as fate wills: the seasons, unusual events, newspaper articles, visits to factories, workshops, and stores have all furnished their quota. Sheer chance will provide much fascinating material, and unless the teacher wants to drive life outside the door, he must accommodate himself to frequent incidental lessons. But this does not mean that he will renounce all plan. Provided that the general outline of the program to be followed is constructed with due regard to the ancestral psychological needs of the children, and thus to their dominant interests, we may be sure that to propose the programme is to see the children accept it with enthusiasm. Certainly, the programmes will vary in detail from class to class;

in every group there are moods which make themselves felt, waves of collective interest for this or that; these are often suggested by something the teacher reads effectively. Then there is also the influence of some young leader, whose marked personality acts on his comrades by suggestion without their even suspecting it. Provided these group interests are not unreasonable and are not merely passing whims (tact is needed in deciding this point), there is no harm in adapting oneself to them. On the contrary, what the pupils themselves have wanted has great power to unite them emotionally. Only rarely will highly independent and self-taught pupils tend to form a group apart. They should be given a little leeway in view of their particularism and their initiative. And when this special need of theirs has been fulfilled, they will quickly rally at a word from the teacher to the general activity of their companions.

Thus when the program has been decided upon by the group, they proceed to carry it out. This is the procedure. When the time comes for the group lesson and the topic for the day has been announced, each pupil "unpacks" his treasures, bringing out what he has filed in the envelope which relates to the topic to be discussed. Great riches come to light. Each enumerates what he has. The material is arranged in logical order, and this table of contents is written on the blackboard and on sheets to be filed away. Whatever is lacking is looked up in encyclopedic dictionaries or other available books (this, naturally, only with pupils of ten to twelve or older). For a host of questions always come up, one or more from every pupil; sometimes one of the pupils advances a hypothesis or even has the answer ready; it is noted down; sometimes no one knows, whereupon a pupil is delegated to find the answer. Perhaps, if the question is not worth looking up, or presents unusual difficulties, the teacher gives the

answer outright. As soon as the plan of the "lesson" is arranged, an exchange of materials takes place: one pupil writes down part of an article of which there is only one copy; another reproduces a drawing, a map, or a picture; another makes sketches. If one of the pupils has begun the lesson with a little explanatory talk, he will also put sketches and explanatory summaries on the blackboard to be copied down by the others.

The subject is then mastered, as far as the pupils' development allows—or that of the few superior pupils. The teacher will not go beyond that point. He will rarely tell the pupils what they do not ask about, and this only when the matter in question is important, is suited to the pupils' years, and has only happened to be omitted. That will sometimes occur. Usually, however, a few clever questions will bring to light the missing idea. Children like riddles.

Then what? The next step is to make a final neat copy, to write up the page which is to go into the "notebook of life," in the portfolio which is the child's "big book" of spiritual conquests. This large notebook has a table of contents corresponding to the programme adopted, and page by page will record what has been learned; this will consist of summaries worked out together on the blackboard and copied down; for the older pupils, independent summaries based on the logical arrangement established at the beginning of the lesson, or series of lessons; sometimes it will include individual projects of larger scope, original work not found in the others' notebooks. And it must not be supposed that these projects and summaries are formed solely of text; they are illustrated at every turn: marginal sketches, maps, paintings referring to the text, pictures pasted in, newspaper articles inserted in the right place, even, as I mentioned before, little samples,—seeds, flowers, pressed leaves or roots, bits of mineral, raw material,

industrial products at various stages of manufacture, fastened with gummed paper,—provided they are not too large to go into the portfolio. In that case they will be stored in special sets of shelves, under glass if necessary,—little private museums to which a note in the text of the large notebook refers.

I need not describe the pride with which every pupil works at his "notebook of life," or his pleasure in showing it to his friends, parents, and acquaintances, or how often he glances over it and rereads it—genuine "cramming," which is worth all the preparation for examinations in the world.

Observation, the association of ideas, invention, reflection, and written expression, sometimes even calculation,—all these faculties have been exercised, all have served an attractive and useful purpose. And I have not even mentioned the objects the little children make, nor the laboratory experiments of the older ones, who similarly bring their minds in contact with matter and in their own way fulfill the double rhythm of observation and expression, in which the surrounding world makes its impress upon thought, and thought in turn puts its mark on the environment.

II

The method I have just outlined does not adapt itself to rigid daily schedules. Although the adoption of a programme occasioned me no difficulties when, sometime ago, I had occasion to put the principles of the Activity School into practice; and although the method of gathering, classifying, and elaborating the materials aroused very real interest, there was, on the contrary, a certain amount of groping about in the establishment, I shall not say of a regular schedule, but of a *modus vivendi* in the work. After all, why should I not speak

of it here? One's tentative efforts, too, are instructive. The best psychological principles are of course only guide-posts, they merely point the way. Putting them into practice depends upon a thousand and one details concerning the personalities under consideration, adults and children, as well as upon the external conditions involved, the material at one's disposal, the degree of suitability of the location, etc.

Following, then, are a few notes taken from the record I kept at the time of my observations and the conclusions I drew from them. I had at this time a class of pupils averaging eleven and a half years of age. At that age some initiative in individual work is to be expected. This was not the case, doubtless for lack of previous experience.

At the beginning of our work together, after a half-hour of group conversation which opened the morning, I one day proposed that the pupils should select individual projects, specifying that if others than those listed were proposed to me, *fitting into the general outline of the subject treated*, I should be quite disposed to accept them. But I was compelled to acknowledge that my pupils did not know either how to select topics or how to work by themselves. I then dwelt longer than I had intended on the matter of observation and on hunting up materials. Soon several pupils understood what was expected of them and threw themselves enthusiastically into individual projects: drawing, maps, writing up material from books. But most of them were a long time learning how to select topics, and, for these last, I continued the group work, aiming always to emancipate them from my direct influence and to provide them means of working which would enable them to go ahead without my aid or that of my collaborators.

For there were three of us teaching. One of my collaborators, the daughter of a naturalist, was especially qualified for *observation*. We went one afternoon a week to visit the mines, factories, workshops, and stores of the region. She also directed the pupils' manual activities: drawing, book-boarding and -binding, gardening, collecting, and, occasionally, keeping

an aquarium or pens of animals. For my part, I treated the same subjects from the point of view of *association of ideas* in time and space: the history and geography of animal, vegetable, and mineral raw materials and their utilization by human energy; natural forces; and machines which help supply man's needs. Finally, my second collaborator was particularly interested in *expression,* oral and written, and gave her time to the problem of language.

This is the general situation: the character and aptitudes of the adults on one hand, and on the other the pupils' interest in the life of primitive man and his subsequent progress—lessons in the life and history of civilization—which grew quite naturally out of our daily activities. There was no time division save the beginning and the end of the daily period allotted to us. There were whole days of individual work without any group conversation. Collective lessons sometimes lasted for a whole morning because the pupils' interest was aroused to this sort of activity and because they asked for it. But usually there was a group lesson of varying length, followed by individual projects. The group lesson was varied and enlivened sometimes by a current matter of interest (the commemoration of a historical anniversary, for instance), sometimes by a question put by a pupil and leading to a digression, and most commonly of all, by a pupil's discussion of his latest individual project. The additional explanations given by the pupils or the teacher led, as I indicated above, sometimes to writing out a sheet to be filed in one of the envelopes provided for the purpose, sometimes to a résumé written on the blackboard and copied by all the pupils in their notebooks of "life lessons."

The choice of group or individual activity was never submitted to a vote. Usually we adults guessed whether one type of activity was still preferred by the majority, or had lasted long enough and now ran the risk of growing wearisome. We then proposed the sort of activity or the topic which we thought would be most suitable, and the pupils usually fell in with it. Quite as I had expected, the proportion of time given to individual projects (projects decided upon together, projects selected from a list of suggested topics, or free projects) steadily grew greater, while that given to group conversation and to summaries worked out together kept diminishing.

Almost every week we treated topics related to the programme of "life lessons"—incidental lessons or lessons based on the table of contents of the notebook we were filling—and historical questions. But spontaneously, without any previous intention in the

matter, during one week there would be more life lessons, while the next week history lessons would predominate.

Not everything occurred as we had expected. Thus the children we had in charge, not accustomed to drawing, took to it but slowly and imperfectly, despite our encouragement and commendation; on the other hand, for a whole month there was a group infatuation for making maps indicating the sources of raw materials all over the world.

Another experience: in view of the unusual docility of most of the pupils, we attempted after the vacation to reintroduce a regular schedule of lessons; but this did not last a week, for everyone found the arbitrary interruptions and the arbitrary hours fixed for each subject to be very repugnant, and inimical to good productive work. The best pupils ended by far preferring individual projects, and the talks they held with the teachers in regard to preparing and revising these projects were an essential element in their pleasure and in their spiritual growth.

I draw the following conclusions from our experience: it is necessary, at the beginning at least, with pupils of ten to twelve years of age, to provide for a certain minimum amount—say from one-fifth to one-third of the total time—of group work (observation, association, expression, and especially written summaries), and a certain minimum of individual projects compulsory for all. These lessons and compulsory projects, which are always well received by all the pupils, have the advantage of providing new pupils with a method of work, and of preventing pupils with little initiative from falling below what may rightfully be expected from their powers; indeed, barefaced impudence and the absence of all effort are problems to be met with, I think, everywhere, but especially in the children of rich parents whose power of initiative has been atrophied.

Always, with most of them—and very early with healthy and balanced children—the liking for individual work increases rapidly, and active participation in group work is enthusiastic. It then remains only to plan the

campaign, to look ahead, to avoid digressions, whims, and waste of time. Once confidence is established amongst all, adults and children, and common sense is set up as the invisible ruler of the little community, everybody works willingly at whatever it is reasonable, interesting, and profitable to study, individually or in the group.

The sole obstacle—often insuperable—that I have come across is the demands.... of the parents. For him who wants a fixed programme of studies, to be gone through with in a given time, our way of working not "on the surface" but "under the surface", has nothing to commend it. No compromise is possible with people who admire programmes of studies and preparation for official examinations; our method of work must be either accepted or rejected.

Many young educators fluctuate between the extremes of authority and anarchy. Our experience shows us that there is a natural authority, not arbitrary, but, as I said above, based on common sense, and on the teacher's power to think quickly, on his ability to divine and foresee, on the skill with which he intervenes instantly before a false lead is taken, even before the pupils suspect they are on the wrong track. This does not mean that in the course of discussion children are not to be permitted to put their fingers, so to speak, on the consequences of their errors. These experiences, within definite limits, are never anarchical and do not lead to anarchy, but rather to a higher order of thinking and acting. Apart from little digressions, whims, errors, or momentary follies, children (save perhaps vicious children, who belong rather in the province of medical treatment) love order. Hence they love the people who, in their eyes, are the incarnation of order, provided this order is not artificial but natural, not arbitrary but reasonable. Order

is thereafter the skeleton of their individual and group life, and the love of work, of correlated interest and effort, is the living and palpitating flesh.

III

It will be noted that two traits characterize the method of the Activity School as I have set it forth: the absence of verbalism and the presence in every thought and act of an element of usefulness—usefulness in the higher sense of the term, comprehended by the pupil, or at least confidently taken for granted by him.

In this respect again, the New School is faithful to the teachings of its forerunners, J.-J. Rousseau and Pestalozzi, as it is in harmony with the findings of child psychology.

Really speaking, Jean-Jacques exaggerates a little. In reaction against the excessive verbalism of the schools of his time, his intuition led him to write polemically rather than scientifically.

"I hate books," he writes; "they only teach one how to talk of things one knows nothing about."

Despite this crotchet, he is not afraid to let Emile have recourse to literary materials, but later than is usual, and only in so far as the book will not set up a barrier between his knowledge and his direct observation of facts. Where the book is substituted for nature, it is an evil; where it discourages the spontaneous activity of the memory, the child's knowledge becomes dependent upon his reference material and he loses his intellectual autonomy; for the mind progresses only in terms of what has been not only retained, but also assimilated.

But J.-J. Rousseau does not exclude all books of every kind, for, a few lines farther on than the quo-

tation I just gave, he recommends the reading of *Robinson Crusoe*. In a moment we shall take up the programme of studies of the Activity School, a programme based on the natural needs of man. J.-J. Rousseau would seem to have had foreknowledge of this point.

"Is there no way," he asks, "to bring together so many lessons scattered through so many books, to unite them in some common object which would be easy to see, interesting to follow, and stimulating even at this age? If we could invent a situation in which man's needs appear in a manner appreciable by the mind of a child, and in which the means of providing for these needs are successively developed with the same case, the simple and vivid painting of this situation should give the child his first training in imagination.....Since we absolutely need books, there is one which provides, in my opinion, the best treatise on education by nature. This is the first book Emile will read; for a long time it will constitute his whole library, and it will always hold a distinguished place there. It will be the text for which all our talks on natural science will be but the commentary.... What then is this marvelous book? Is it Aristotle? Is it Pliny? Is it Buffon? No; it is *Robinson Crusoe*." And again:

"Instead of making a child pore over his books, I keep him busy in a workshop, his hands working to the profit of his mind.....Our first teachers of philosophy are our feet, our hands, our eyes, and also our reason, which helps us to guide them. To substitute books for all that is not to learn to make use of other people's reason, but to acquire the habit of believing much and never really knowing anything..."

What he sees in *Robinson Crusoe* is the picture of a human being who provides for his own needs by means of his own intelligence and labour. That is,

to young children, useful motives of action are in the forefront of interests, as they were, according to all the evidence, for primitive man. Let us consider this idea of usefulness, conceived as a satisfaction of the primordial needs of man. First of all, the children must comprehend this usefulness; if they are to want it they must first understand it.

"When children foresee their needs before they feel them, their intelligence is already well developed; they are beginning to understand the value of time. We have then to accustom them to spend their time on useful things, useful in terms of their years and understanding.....Cause-and-effect relationships we do not perceive; good and evil of which we are ignorant, needs we have never felt, are all nothing to us; we cannot be interested in them by doing anything which relates to them.....; even if we understood them, we could accomplish little if we did not want them.....; it is only emotion which makes us act; and how can we feel emotion about interests we do not have?" This is even more true of the child than of the adult. "Talk to him only of things whose usefulness is clear to him now."

Is this not a sound basis for the programme of the Activity School?

Elsewhere he says again:

"What have we to do after we have observed all that surrounds us? To convert to our own use all of it that we can appropriate, and to make our curiosity profit our well-being." This is what every child does spontaneously. Emile "knows little about generalizing ideas, little about making abstractions. He sees qualities common to certain objects without reasoning on these qualities in themselves." Only the relations between things interest him. "He esteems what is strange to him only in terms of its relation

to him; but this estimation is exact and sure.....He sets most value on what is most useful to him."

To go from theory to practice, Pestalozzi limits the instruction of his little pupils at Yverdon "to the pure and simple knowledge of external objects which compose the child's horizon, or the sphere in which he exists."

For the older ones, the teaching consists of "the application of the powers or faculties to suitable objects, which, without as yet being destined for any positive and definite calling, are of general use to man and humanity; it is, in other words, the power given the child to apply all *that he is*, all *that he knows*, all *he can do*, to the objects and the circumstances which nature and social life present to him."

IV

Obviously, to start with the needs of man in nature, to start with the needs of the child himself, to bridge the gap between them, is to go back to the ancestral and biogenetic sources of interest; it is to call out the most vital interests, the *primordial interests*, upon which all the others may be built up. The ability to be interested in these things belongs to every being, whatever he is and no matter how downfallen he may be; all the more so to the healthy child, awakening to life, rich with potentialities not yet unfolded, not crushed by a training which would oblige him to repress his best instincts. Now interest has the peculiar virtue of spreading like wildfire. I do not mean here the teacher's suggestions to the pupil. These have their value, have long been used, have sometimes been abused in order to instill in the child's mind a mass of ideas and feelings foreign to his fundamental nature. No, the devouring fire to which I allude is within. From a given

center of interest, from a hearth lighted by a mysterious spark from forgotten ages smouldering under the ashes, it is possible for the experienced educator gradually to kindle fires at other hearths of light and warmth. William James has demonstrated this truth very effectively.

The Activity School is based on this truth. And as this procedure does not fit into our schedules parceled out in small units, schedules much better adapted to scattering attention over twenty different subjects than to developing its concentration and perseverance, we shall take up only a few topics in the month, only a few subjects during the day. Many schools, even a few public schools, have adopted this system. It gives gratifying results. It has been objected that this system must be very fatiguing to the pupils, since they are not old enough to concentrate their attention very long consecutively on one subject. The objection rests on a misunderstanding. It is not the dwelling on one subject which fatigues the child and wearies and distracts him, but the dwelling on it with only one of his faculties. Have him in turn observe, note, experiment, draw, construct, discuss, summarize orally, write out, revise, and the hours will pass before he knows it.

True, it takes some time to awaken, guide, and diffuse interest. It takes time to teach the pupils to keep all their powers alert. Those who are fond of *a priori* judgments will cry out at the waste of time. Precious waste of time! Fruitful waste of time! Many men, escaping from the steam-roller of the official schools of former times, have, by profitably wasting time, become benefactors of humanity. The poor showing of school "grinds" and universal memorizers, as compared with the success in life of certain dreamers, who beneath the surface were selftaught geniuses, is one

of the favourite arguments of the opponents of the traditional school. Their statistics are convincing. It is the place of the psychologists to indicate the cause of the evil. It is the duty of responsible authorities to do what they can about it.

Everything considered, the loss of time occasioned by the "slow method" is only apparent. We cannot hasten the evolution of the tadpole into a frog by cutting off the tadpole's tail. *Creative effort alone is fruitful.* Mechanical effort leaves no trace unless it is made fertile through productive effort. The maximum of useful results for the minimum of useless effort, is this not also the formula of interest? One always comes back to it, when one speaks of living, of ends to be attained, of means to be employed in reaching those ends.

V

We have just discussed the method and the schedule of the Activity School. It is time to examine more closely what its programme of studies is to be. As I have just indicated, this programme will be adapted to the dominant interests of children and adolescents. What are these dominant interests?

In accord with the evidence provided by the biogenetic law and the evolution of psychological types, I distinguish six periods in the life of the child and of the adolescent, periods which seem to me each to form a separate whole, or at least to present characteristics clear-cut enough, different enough from those of the preceding and succeeding periods, to merit separate treatment.

1. Let us leave aside the first one, that of *sensory interests*, which concerns the babies of one, two, and three years of age. The study of this period belongs to the field of pre-school education. We shall deal

here only with older ones, old enough to go to school.

2. Children of four, five, and six years are in the infantile period which we may call the period of *scattered interests* or the *age of play*. The child still belongs entirely to the family. He may be said to be in the "golden age" of the family.

3. The age from seven to nine years forms what I have called the period of *immediate interests*. From the social point of view, it is the age of the clan or tribe, that in which pastoral and agricultural interests predominate.

4. At ten, eleven, and twelve years of age the child goes through the period of *specialized concrete interest*, or *the age of monographs* : the age of the school city, of the artisan, of the division of labor.

5. The adolescent of thirteen, fourteen, and fifteen years is rising already to the stage of *simple abstract interests*. This stage ends in what I have called the age of the builders, preceding that of organizers.

6. Finally the youth of sixteen, seventeen, and eighteen years at last finds his higher faculties expanding in the period of *complex abstract interests*. It is *par excellence* the age of preparation for social life, that in which, as Aristotle says, man manifests himself as a social animal.

Before developing the program which grows out of these considerations, may I be permitted to make my point of view perfectly clear so as to avoid a few misunderstandings ?

To begin with, this must not be taken as a rigid and supposedly rigid scheme of the evolution of the child and the adolescent. The power of being interested in things and in people is infinitely various, even in the essentials which alone I have tried to isolate. Between one child and another there are profound differences—

all the more reason for individualizing teaching as much as possible. If I have chosen interest as the basis for distinguishing the characteristics of these stages, and if I have felt justified in assigning a definite typical age for their appearance, I have done so because spontaneous interest is the most patent of all characteristics, one might almost say the only one which enables the educator to look deep into his pupils' soul; moreover, thousands of observations have made it possible to ascertain exactly for the vast majority of cases the precise nature of the interest characteristic of each stage. However, this division into six stages is to be taken only as a guiding principle. If it aids in the reorganization of courses of study, that is all that we expect of it.

Let us then pass these stages in review, with particular emphasis on the last four, which are within the province of the school.

First stage.—Stage of *sensory interests*, ages one, two, and three years. As I have said, we are not here concerned with this stage.

Second stage.—The stage of *scattered interests* or stage of *play* corresponds to the kindergarten age. At this age, four, five and six years, play is a study and study must be play. In my opinion, play is not directly, as many psychologists and educators to-day believe, a preparation for life; at most it is an incidental preparation for life, by superaddition, so to speak. I have shown, in speaking of the biogenetic law, that play must be regarded as a recapitulation of ancestral activities. My conviction on this point is confirmed at every new observation. However, I will admit that if progressive life is made up of struggles and victories, play proves to be an admirable preparation for life, for it, also, consists essentially of struggles and victories. It is not for

nothing that children, and adolescent races following our first ancestors, hold play in high repute. It is not for nothing that the liking for it persists in so many adults, especially in the Anglo-Saxons. Certainly, play is distinguished from work by the absence of a concrete end; for victory is the sole stake and the matter goes no further. And it is further distinguished from work by the absence of effort other than that necessary to win. But the very fact that it supposes a goal and effort to attain that goal, gives it educative value of the first importance, so long as the child is incapable of doing real work,—that is, spontaneous, not imposed work.

For the child's liberty of action, within the limits of respect for the rights of others, and to the exclusion of too serious natural sanctions due to his inexperience, is essential at this age. It was Mme. Dr. Montessori, a genius of wide experience, who made the following strong statements:

"The touchstone of scientific education must be the liberty of the pupils, which is absolutely essential if individual abilities are to be developed.

"To stimulate life, and at the same time leave it free, is the task of the educator.

"It takes real skill to choose the right moment, to limit one's intervention, and not to deflect the soul which is coming to life and must learn to live by its own powers."

I refer the reader to Mme. Montessori's work, already cited. Save in a few matters of detail, I cannot but give her principles and her method my enthusiastic support. The Montessori material, used without unnecessary pedantry, and barring perhaps a few games which direct the attention of the little ones to words rather than to things, is to be warmly recommended, as are her suggestions for taking care

of classrooms. I wish to call attention also to the Descœudres play material, inspired by Dr. Decroly, and available from the J.-J. Rousseau Institute at Geneva. To choose these games, to recognize their difficulties, to wish to overcome them, to keep trying until he succeeds,—these things must characterize the child's study. He is at an age when he seems to be awakening to life, his eyes full of I know not what far paradise. Let us guard against besmearing with charcoal or chalk such beautiful dreams of the golden age!

The child of four, five, and six years of age, I repeat, is in the age of play.

My learned colleague and friend Dr. Edouard Claparède has adopted the great German psychologist, Karl Groos's theory of play and has given it tremendous significance by applying it directly to education. It is clear—everything in this book goes to prove it—that spontaneous activity, coördinated in the pursuit of an end, is the foundation *par excellence* of the Activity School. If we give the name "play" to this spontaneous activity, to this effort which is not imposed but wanted, we may affirm that play is the first form of work. In his *La psychologie de l'enfant* (Child Psychology), Dr. Claparède notes very ingeniously by means of a diagram the transition from one to the other. There is an ascent from primitive play to complex play (with a pseudo-end), from that to occupation, from simple occupation to activity with a play end, and finally to the superior play which creates values and is very near being work. On the other hand, from superior, genuinely interesting work, man—and, unfortunately, the child!—can be led to descend at first to work with intrinsic motivation, which is desired from the standpoint of its usefulness, then to work with extrinsic motives, that is, work which is a means

for attaining a different end, then to drudgery, and finally to forced labor, ... the very thing the traditional school imposes on many little innocents. And Dr. Claparède quotes this saying from Dr. Roigey: "There is forced labor which no mature man would be willing to endure for six or seven years, though it gave him access to the most brilliant career."

To recommend that play be used in the school is but a step further. Dr. Claparède took this step, not only in theory but also in practice.

First, in theory: "Childhood has a biological meaning," he writes; "consequently the educator, far from attempting to transform the child as quickly as possible into an adult, by imposing on him, from without, adult modes of thinking and acting, must on the contrary allow the child's natural activities freedom to express themselves and to develop. Hence we must study these natural manifestations of the child and bring the educative process into harmony with them. The methods and the programs gravitating around the child, and no longer the child revolving willy-nilly about a fixed program outside of himself,—such is the 'Copernican' revolution to which psychology calls the educator.....In a word, the child, instead of being educated, will be placed under such conditions that he will as far as possible educate himself."

Dr. Claparède took this step in practice also. In 1914 he annexed to the J.-J. Rousseau Institute—which he established in 1912—not a practice "school" (he has a horror of the very word), but a *Maison des Petits* (Children's Home), open to children aged three to seven years.

"The life the children lead at the Maison des Petits," he writes, "is not an artificial parenthesis

introduced into their real child life; it is child life itself, focussed upon the activities best suited to encourage its integrated development.....We have, naturally, been reproached with letting the children "do everything they want to." But there is no harm in a child's doing everything he wants to, if he wants to do the right things! It is simply a matter of arranging things so that the child will be attracted to the occupations (games or tasks, it little matters what they are called, provided they arouse effort and have educative value) that stimulate his intellectual, moral, and social development:—in short, so that everything he wants to do will be an opportunity for him to progress.

"But I prefer to reverse the formula and to say that at the Maison des Petits we want the children to *want everything they do.* We want the children to act, not be acted upon. Indeed, an activity which is not acceptable to the one who carries it out, which is performed unwillingly, does not yield all its educational effect, is not a means of developing personality."

VI

Third stage.—The stage of *immediate interests* is characterized by the following traits:

The child of seven, eight, and nine years is still preponderantly interested in what emanates from himself and in what ends in himself. He understands nothing well save what happens in the here and now. He loves above all to do things, and acquires from everything that surrounds him a body of experience deriving, chiefly, from his actions and from the reactions they lead to, partly from his sense of sight, and lastly, though still in a cursory fashion, from his sense of hearing. The child has a liking for what

is useful, *in the degree to which this usefulness is apparent to him and concerns him.* He is interested in mechanical causes and effects in everything that moves,—the operation of machinery and natural phenomena.

If other and more complex interests are added to these first ones, they will last for a longer or a shorter time. The liking for actuality, interest in what is near, remains in general throughout life.

In the world of living creatures, the child is usually interested in animals (especially in those dependent upon him), in other children, and in the few adults on whom he depends and who treat him affectionately.

Those are the facts. In order to make the most of them we must bring these natural interests together so that new interests will grow out of them. The child loves to act? He loves what is useful? Then have him make useful objects.

He is more interested in children than in adults. If we want to try to attract his attention to other times and places—so as to lead into history and geography—we must have him learn about the children of other times and places and the things they use.

The idea of utility and the relations of cause and effect in which he is interested give us an opening for introducing him to physics and chemistry; we must talk to him about industrial machinery the usefulness of which is clear to him: locomotives, airplanes, chocolate factories.....

As the child grows, his interests become more clearly defined, and the educator can more and more surely use them to build up the body of interests which will lead to the unfolding of his intellectual powers. We must, therefore, have not a logical but a biological

program of studies. Then this biological series, based on the fundamental interests of this age, will be the cord which is to lead us safely through the labyrinth of children's spontaneous and more or less universal curiosities. This series will enable us to go beyond the caprices, the whims, and the anarchy of these little individuals and to create, with them, by them, and for them, an order in their work which, following the traditional school, I have designated by the very big word "program."

Is a program, a systematic order, really necessary? Indeed, yes; children need it; if it is not provided for them or if they are not aided in working one out, they will call for it, or at least will obviously suffer for lack of it.

"See to it above all that their experiments are closely related," said the spiritual father of Emile, "so that by means of this relationship they can be kept in order in the child's mind and can be recalled at need; for it is very difficult to recall isolated facts or even arguments when there is no specific means for doing so."

What then is this program to be? It will grow quite naturally from the preceding considerations, and from the dominant interests of the age we are studying.

But one very important proviso must be noted: although these interests have their inception in the child's immediate environment, this environment interests him only as it serves his primordial needs. *The needs are not subordinate to the environment but the environment to the needs.* The needs exist first, they are primary, they constitute an end; the environment follows it is secondary, it is the medium through which the needs seek their fulfillment. Many who have made programs for the Activity School have failed to recog-

nize this distinction; they have been well aware of these needs, but they put first the mere medium, the environment. This practice has given rise to a multitude of publications bearing, in Germany, the collective name of *Heimatkunde*, which has been translated by the somewhat inadequate term "science of local geography"; inadequate, because empirical knowledge is not yet a science, and if the teacher, misled by the word, expected to teach an organized science to children of this age, he would perceive, sooner or later—it is to be hoped!—that he had followed the wrong course.

Nevertheless, the *Heimatkunde* should constitute an essential part of the program; I should say *the* essential part, if it were not necessary, even before the matter of man's needs in general, to consider a definite procedure: (a) to start with these needs; (b) to endeavour to find how the child, the man, and society satisfy these needs in a given locality. That is the order as determined by the preponderance of interests, hence the order that should be followed.

That once established, it should be emphasized that the locality in which the child lives is the source of all his observations, the world upon which he exercises his spontaneous activity. Wilhelm Ostwald, in his work on *The Energetic Imperative*, comes to the conclusion that it is thence that the child derives all or almost all that he truly possesses, because he has thoroughly assimilated it.

"In the light of the preceding considerations," he says, "we must recognize that the principle of the Activity School, especially for the first grade, comes down to this: the child's comprehension is developed in the circle accessible to him; to cultivate it there, is the primordial duty of the school. If, then, the teacher, accompanied by his class, gives his first year chiefly to examining the classroom, then the

home, the street, and the fields, pointing out and naming various concrete objects and situations, he is exercising the elementary educational activity which serves as preparation to the first and most general of all the sciences, the science of order, or logic."

Gansberg holds the same opinion. No geographical descriptions, he says, but life itself; if the bridge, the water, the store-fronts, the letter-box, the street-car, are made to live, a host of questions will come up, and the appetite for knowledge will be insatiable.

VII

The primordial needs of man, especially of primitive man, will, then, be the starting point for the program of the Activity School.

Four men, four educationists who are also psychologists, have seen this very clearly: John Dewey in the United States, Dr. O. Decroly in Belgium, Jan Ligthart in Holland, and W. A. Lay in Germany.

"The school must not be isolated from the society of which it is a part," writes John Dewey.[1] Whereupon he draws a diagram composed of a square, A, the school. To the right we read (1) The family; below, (2) Garden, park, country; above, (3) Business world; to the left, (4) University, scientific research, technical work, with arrow leading to the school, and professional training, teachers, etc., with arrow leading from the school to the university. Everywhere else there is a double arrow, from within outward and from without inward, meaning "constant interchange of influences, of ideas, of objects between family and school"—interchange "with the natural surrounding.....with the phenomena

[1] This as well as subsequent quotations in this section of the chapter are taken from his book "Waste in Education."

and forces of nature"—"necessity of relations maintained between the school and the realities of industry." The child must be able to "utilize freely and completely, in the school itself, the experience he acquires outside" and "apply to his daily life what he learns at school."

But, to go more deeply into the problem, new aspects appear:

> The central square becomes a library and this is augmented at the four corners by four additions. To the left, below, the dining room; to the right, below, the kitchen, relating to the family and to nature; to the right, above, textile industries, relating to the family and to business. To the left, above, shops for woodwork and blacksmithing, which relate to business, but prepare the mind for university study. "In the centre, the library where everything comes to a focus, that is, where takes place the unification of intellectual riches of all kinds which permit a thorough understanding of the value and scope of manual occupations..... The practical activities of the school do not end in themselves; they do not aim to train cooks, dressmakers, masons, and carpenters; but they have a social end which consists in making the school a preparation for society."

What follows will supply not only the table, but more especially the program of studies:

"Everything which comes into the kitchen comes from the country, comes from the ground, has grown under the action of light and moisture, is the product of very different surroundings; and it is for this reason that, from the garden to the entire world, the child quite naturally begins the study of the sciences. Where does this plant grow? Under what conditions? What influence does the soil have? The climate? etc. ....."—"The outer world is in an analogous relation to the school activities of woodwork and weaving. The country provides them raw materials, the physical sciences show them how energy is applied, business teaches them how manufactured goods are

distributed, the history of art enables them to follow the development of architecture and decoration."

The children become adolescents. The interests are transformed. Let us consider that stage.

At the centre, it is no longer the library, but the museum in which are concentrated the materials of the four surrounding rooms: below, to left and right, the plastic arts and music; above, laboratories for physics and chemistry, and the biology laboratory—the sciences of inorganic matter and the science of organisms.

"The school becomes thus an organized whole instead of an agglomeration of parts poorly knit together. Knowledge there assumes an aspect at once geographical, artistic, literary, scientific, and historical. All the studies are unified by the world we live in and by the life which develops there..... Relate the school to life, and all the studies will necessarily be interrelated.....The supreme end is the development of the social usefulness of the child, is a more complete and truer union with the life of the world; training, culture, acquisition of knowledge are but stages of this development."

Dr. Decroly sets forth and justifies his program in the following terms :

"The characteristics of this program are the following : (1) the school must fulfill its general educational goal by preparing the child for real social life; (2) this preparation is best provided for when the children are introduced practically to life itself in general and to social life in particular; (3) this introduction to the material of the program necessitates the examination of the two fundamental fields of knowledge : (a) knowledge by the child of his own personality, the power of self-knowledge and consequently of his needs, aspirations, aims, and ideals generally; (b) knowledge of the conditions of the natural

and human environment in which he lives, on which he depends, and upon which he must act, so that these needs, aspirations, aims, and ideals may not only be accessible, but actually realized, and that without prejudice to a preparation for a broad understanding of the needs, aspirations, aims, and ideals of mankind, of the conditions under which mankind is to progress, and the means of coöperating in this process, of having a conscious, intelligent sense of solidarity."

"*Program of associated ideas.*

"A. The child's knowledge of his needs.

"Endeavoring to confine ourselves to facts easily observed by the child and to facts which have the widest repercussion on human activity, we distinguish four outstanding primordial needs :

"1. The need of *food*, to which may be added quite naturally the need of breathing and that of cleanliness.

"2. The need of protection from *cold*, from *bad weather*, etc.

"3. The need of *self-protection* against the various dangers and enemies.

"4. The need of *coöperation*, of recreation and self-improvement, to which may be added the need of light, of rest, of association, of solidarity, of mutual aid.

"B. *Knowledge of the environment.*

"Knowledge of the environment, regarded especially from the standpoint of the satisfaction of these needs, consists of the examination of all the factors of this environment, from the human environment (*family*, *school*, *society*), and the living *animal* and *vegetable* surroundings, to the *inorganic* environment, including the *sun* and the *stars*.

"Two forces are to be distinguished :

"a. The action, desirable or undesirable, of the *environment on the individual.*

"b. The reaction of the *individual on the environment* and particularly its appropriation to his needs.

"From another point of view facts and things are considered under four different aspects:

"1. Directly, through the agency of the senses and immediate experience;

"2. a. Indirectly, by *personal memory*;

"b. Indirectly, by the examination of various sources relating to *past phenomena* (history);

"c. Indirectly, by the examination of various sources relating to *actual phenomena* not directly accessible (geography)."

The first aspect leads to *exercises in observation*, the three others to *exercises in association.*

Let us see how Jan Ligthart, the popular Dutch educationist, deals with the same subject:

"The teaching material cannot be indicated more exactly than by saying that it all comes from nature. But nature is everything, and we must select from among the immense diversity of subjects it offers us. This selection we shall make according to the following principles. The ideas the children are to acquire must:

"1. enable them to know their environment better;

"2. prepare them for the study of the subjects to be taught, and thus for life itself;

"3. open their eyes to the relations between the different fields of nature and of the life of man.

"As to the first point, the child is surrounded by manufactured goods and industrial products; he must first know their forms, colours, and other physical characteristics. Following this careful examination, he must proceed to industry itself, to the work of man, and thence to nature, which has provided

the raw materials for it in the form of minerals, plants, or animals. This leads us into three different but closely interrelated fields :

"a. nature, which is for all of us the great and unique source of raw material;

"b. industrial society, where these materials are transformed;

"c. the society of consumers to which we all belong."

What is to be selected from all this body of material, and in what order should it be presented? Jan Ligthart, by means of a story in which figures a family of parents and children, takes the pupils through the characteristic regions of Holland: uncultivated regions, —forests, heaths, marshes; and cultivated regions,— meadows, pasture land, fields, cultivated marshland. The plants, animals, and particularly the characteristic industries are dealt with in this way.

During the summer semester of the first two or three school years, the pupils are taken on an imaginary journey through the uncultivated regions.

"As to the cultivated regions, they will first see the pasture land with its characteristic plants, the animals which feed on them, and the industries—dairy and wool especially—which derive from them; then the fields, which bring them in touch with agriculture; and finally the cultivated marshland and the fruit and vegetable business they lead to."

This study will serve to introduce the study of geography and history (history of the conquests of man over nature) which will come later.

In addition, "the school garden must be planned in keeping with this program, so that the first year class may find there its meadow with appropriate grasses and flowers; the second, its field of wheat and potatoes; the third, a kitchen-garden with a judiciously

selected variety of vegetables.

"As to the winter semesters, they are reserved to three industries, at once amongst the most important and the simplest:

"1. the wood industry;

"2. brick-making and pottery;

"3. stone-cutting."

These studies lead to those of the higher grades, where the pupil finds, for example, "how vegetable fibres are converted into cloth, sand and soda into glass, skins into leather, ore into ironware. In conformity with the correlation between the complexity of an industry and the time of its appearance in the history of civilization, it will be seen that—as was the case in the agricultural industries—the order we follow is almost parallel to that of history."

Thus that which later becomes botany, zoölogy, and physics is prepared for from the very first years in terms of the needs of man and the industries which derive from them.

For example, Zealand, where beet sugar is produced: Beets are cultivated in the school garden (botany) and, in the physics lesson, osmosis, crystallization, solutions, and other applications of physics to the sugar industry are studied.

That which precedes relates chiefly to the first three school years; during the three following, details are taken up which were not grasped by the younger pupils, but which can now be understood and appreciated. Thus, when technique or biology is concerned, three sorts of problems come up:

1. How is this energy transformed into mechanical motions?
2. How is this motion transmitted?
3. How are raw materials transformed into manufactured products?

These problems are met with in the steam engine as much as in the human body.

"During the fourth and fifth years, we cultivate in our school garden various plants used industrially, and requiring either clay or sandy soil. Among the first, let us list the plants grown for their fibre—flax and hemp; plants that produce vegetable oils—the two preceding and rape; plants grown for their roots—chicory and the sugar-beet; for their leaves—tobacco. Among the plants grown on sandy soil let us cite rye and potatoes,—for the industries of paper, potato-flour, and starch, all so easily understood; similarly buckwheat and lupine, the last as a cover-crop; to these may be added tulips and hyacinths."

This gives us another basis for studies in all branches of human knowledge.

In Germany, W. A. Lay published in 1911 a book entitled *Tatschule*. Is not this word the prototype of our expression "Ecole active" (Activity School)? The sub-title reads: "A school reform in harmony with nature and civilization."

Let us take the following lines from an account which he himself gave of the book.

"Modern conditions demand a modern school; innumerable projects for reform come up on all sides; but general principles are needed with which to unify all these very different tendencies..... The Doing School attempts to fulfill this need by endeavoring to establish solid foundations for a school in harmony with nature and our civilization. In elaborating its principles, it makes use not only of the philosophical sciences, but also of the biological sciences and of the findings of experimental research in the field of education.

"The Doing School considers the child as a member

of an organic community formed by the earth, water, light, and heat, the plants, animals, and men of the region where the school is located. The schoolboy finds himself amidst a living community which includes a natural aspect—the earth and the climate—and a social aspect—the family, companions, and religious and political affiliations. The Doing School leads directly and gradually to life in the state and among mankind. From birth, the natural and social aspects of the community wield their influence on the child and give him certain tendencies, physical or psychological, that he must use or fight against. The Doing School regards impression, elaboration, and expression as the members of a unity it describes as 'reactive.' Reflex, action, and will are its chief manifestations. The human organism presents thus a complicated system which it is the function of education to differentiate"—and to integrate, I would add. "The reactive apparatus is not completely developed unless it is put into action. Hence we need an education which aims at activity, a Doing School."

The analogy should be noted between the principles underlying the school program (which are developed in the course of the book), and those of the authors whose ideas we have just considered.

Following John Dewey, Dr. Decroly, Jan Ligthart, and W. A. Lay—although quite independently—the present writer has pursued much the same course, proceeding in general as follows :

During the first two months, teachers and children together investigated the needs of man and the means of satisfying them, in general outline and by way of preface, so to speak. The starting point was an excursion to some caves; this visit spontaneously gave rise to numerous questions on the life of primitive man. The study of primitive man, illustrated and supplemented by the reading of many pages of Rosny's *The War of Fire* lasted over two weeks; the liveliness of the pupils' interest allowed us to go rather

deeply into the subject. The primitive child and the modern child were contrasted. At this time a rapid group survey of the needs of man and his conquests throughout history led the pupils (averaging eleven and one-half years of age) to recognize four types of material needs : *food*; *heat* (housing, clothing, heating), to which they wanted to add the need of light; *protection* against all the forces injurious to human life; and *work*, human energy as used for the needs of man, for society, and for the development of spiritual values. This last was an unforeseen factor in this experiment; for the pupils, in their own way, plunged into philosophical speculation and wanted to add to the program three other types of spiritual needs: the need of *truth*, leading to science; the need of goodness or of *mutual aid*, leading to ethics; and the need of *beauty*, leading to art. And thus in addition to the headings indicating the relations of man (considered as to the needs of his organism) to his neighbor (family, school, society) and to nature (animals, vegetables, minerals, the earth and the sun), these further headings were adopted: science, mutual aid, and art.

I have already described how the headings thus formed, some forty in number, to which later were added the historical headings (Primitive Man, Antiquity, Greece, Rome, the Middle Ages), figured at once on the envelopes in which the materials were classified and in the table of contents of the large portfolio or "notebook of life." And I wish also to recall that everything was regarded from the standpoint of its usefulness or harmfulness; and from the standpoint of its developments in time and space, that is, how these needs were satisfied formerly at various periods, and how they are satisfied to-day, in various parts of the world (introduction to geography and history).

VIII

Fourth Stage.—The stage of *concrete specialized interests* involves the same centres of interest as the preceding. But the child of ten to twelve years of age, without being able, in general, to like abstract and systematized knowledge, can take an interest in living creatures or

creatures that have lived in other places or in other times. Thus, now is the time to subdivide into "branches" the heretofore single trunk of studies. However, these branches should still be closely related to the main trunk of human experience, work and man's needs, nature and society, with as yet no subdivisions which involve abstract knowledge (physics, chemistry, zoölogy, botany, etc.). I find no justifiable exception save for arithmetic and the mother tongue.

I wish to point out here, at the risk of anticipating what properly belongs to the following stages, that the program itself obeys the law of progress,—differentiation and integration,—obeys it naturally and spontaneously. If we adults did not take the lead, the pupils, feeling their way, and led by the more clear-sighted among them, would work out this principle for themselves. At the beginning (seven years), knowledge forms an almost undifferentiated whole; little by little, what later becomes the social and natural sciences begins to be distinguishable; but each of these divisions still forms a homogeneous mass. That is the second stage (ten years). In the third stage (thirteen years) these principal divisions are in turn subdivided. But these subdivisions are closely interrelated by the study of man, taken as the centre of interest in the social field, and by the idea of natural causation in the scientific field. The new subdivisions of the following stage (sixteen years) are still more closely coördinated in a higher unity by psychology on one hand, and, on the other, by determinism, conceived as a method of exact science. Thus a higher and higher integration, ending in moral philosophy and the philosophy of science, enters in to counterbalance the successive and increasing specialization of the various subjects.

This twofold character of the program, undifferentiated and unintegrated at the beginning—at least not

yet reflectively unified in the child's mind—and then highly differentiated as regards separate subjects, but also highly integrated by thought and reason,—this idea was, remarkably enough, foreseen by Pestalozzi. I shall give two quotations on this subject. The first applies to the beginning studies, for the youngest pupils :

"The various branches are not as yet treated as special fields of knowledge such as those to which a young man devotes himself exclusively when he is to make them the chief object of his profession or of his life, but are treated rather as general bases upon which to build up his rank as a man amongst men."

This second quotation deals with a later stage of study, for adolescents :

At this age, "all the sciences form a large organic whole, and the pupils' instruction carries them to a fair degree of advancement so that they may and must grasp these intimate relations of all the branches of human knowledge, which to them have become as a single body, a vast and magnificent whole, a great tree, the sap of which gives life and spirit to all the branches, but each branch of which must be cared for and cultivated separately."

But let us come back to the age of concrete specialized interests. I described it as the age of monographs. Indeed, the children's interests, centring as they do in real or imaginary beings of other times and places, constitute a sound basis on which to build in order to open up new horizons to them. To follow the life of some hero of history through the difficulties which have beset him ; to travel in imagination at the risk of a thousand perils with some courageous explorer,—these are what captivate the schoolboy. A judicious selection of these heroes and explorers will make it possible to cover all countries which are most important historically and geographically. Biographies and books of travel are

so many monographs, characteristic of the interests of this period.

In the sciences, biological monographs will be worked out on the useful and harmful animals of the country, on their habitat and their food, on how they live. Whereas in the preceding period animals and plants were studied in terms of their usefulness, in this period their usefulness is studied in terms of botanical or zoölogical individuality.

In the selection of historical figures I believe, indeed, that the life of some one of the subjects of these potentates would enable us better to penetrate into the civilization of his epoch—into the work, industries, customs, habitations, clothes, furniture, festivals, literature, art, social institutions, philosophy, and religion—than all the great feats of arms, political treaties and other manifestations, frequently far from edifying, of personalities (shall we describe them as privileged or victimized ?) whom social life has elevated to the throne.

Geography may profit considerably by the biographical method. Whether it be the acts and deeds of some apprentice roaming pack on back about the cities and the various regions of his country, or the peregrinations of some ancient or modern globetrotter, much good can be derived from such narratives provided they describe what was seen, and make apposite observations thereon. A Vasco da Gama, a Cook, a Stanley, a Sven-Hedin, a Charcot, a Nansen—to which names I would be perfectly willing to add those of a Jules Verne, an André Laurie, or a Mayne Reid—those are the great masters in geography and other related sciences such as I conceive them for schoolboys of ten to twelve, and even beyond.

Conceived in this way, history and geography also open the door to the natural sciences.

So far as geography is concerned, the fact is in-

contestable. My pupils themselves discovered in the account of the *Voyage d'une Suissesse autour du monde* (A Swiss woman's trip around the world), information on the cultivation and preparation of rice, cocoa, rubber, etc., which attracted them at least as much as the monographs in the *Grandes cultures du monde.* (Great cultures of the world).

For history, the usefulness of an outline of the evolution of scientific inventions is questioned. Whereas one writer declares that it is very important, in the teaching of a scientific subject, whatever it be, to follow the historical order of events, in order to give the subjects treated a human as well as a scientific interest, another opines that this is impossible and useless. Perhaps the truth lies between these two extremes: historic interest probably takes precedence over strictly scientific interest in children of ten to twelve, while scientific interest takes the lead for pupils of thirteen to fifteen years of age, the historic attitude toward the discoverer being regarded from then on only as a digression and as an example of the evolution of science from the simple to the complex.

Further, history, science, and moral training may profit by the biographies of such men as Davy, Mayer, Faraday, Liebig, Gerhardt, and Helmholz. Material for this age must be simple, clear, concrete, and lively. Moral beauty should appear, but it should not be preached about. Why must biographers so often be moralists, when moralists make almost everything go in one year and out the other? Children are acute; if they perceive that you intend to moralize, they will leave you talking to empty air.

In its materials for the natural sciences, the official program of the primary schools of the canton of Vaud has carefully taken into consideration the need for monographs. Here is the table of contents by way of

illustration :

The meadow (dandelion, crowfoot, sage, mole, field mouse, crow, finch, bee), the field (wheat, potato, pea, hare, lark, adder, beetle), the vineyard (vine, starling, snail), public highways (horse, chestnut, linden, plane-tree, sparrow), the forest (anemone, oak, strawberry, belladonna, mushrooms, fox, wood-pecker, owl, red ant), the mountains (pasture land, trees, the fir, rhododendron, yellow gentian, chamois, eagle), water (glacier, streams, trout, crayfish, salmon, pike, herring, whale), the marsh (reed, osier, stork, frog, dragon-fly), stones, rocks, and soils (molasse, limestone, granite, sand and glass, lime, slate, clay, and bricks), and finally the metals (iron, lead, tin, copper, silver, gold).

It should be noted that the classification of plants and animals does not reach this stage until the age of twelve or thirteen.

Much better as to text, much more attractive to children of ten to twelve years of age, are the little books by J. Henri Fabre, the celebrated author of *Souvenirs entomologiques*.[1]

As a general rule, all observations of a purely scientific order,—abstractions, classifications, quantitative experiments,—must be left to the following period. The things suited to this age are qualitative experiments, the life of living creatures, and, as before, the study of what is useful or harmful to man.

It will perhaps occasion surprise that I have apparently left language and arithmetic out of the general program. I believe that in the beginning they should constitute a part of original unity of studies, occasionally leading to separate exercises in lessons in observation (measuring and calculation) and in expression (verbal or written). Still, at ten or eleven years of age, the pupils generally begin to want to study them separately, and it is advisable to accede to this wish—or to call

[1] Some of the writings of this great scientist, so sensitive to the beauties of Nature, have been translated into English.

it forth tactfully. It is not my purpose in this book to discuss methods. However, although I am not afraid that these two subjects (especially the mother tongue, which takes care of itself) will interfere with the other subjects, nor that the manual activities (particularly drawing) will interfere with arithmetic and language, I want to guard against a misuse of their reciprocal interpenetration. Let me explain. The languages and arithmetic are constructive studies, in the sense that one must know what precedes in order to be able to understand what follows. In the natural sciences, in history, in geography, one can if necessary start anywhere, take up one point and disregard another. But that is impossible in the languages and mathematics; for they are the pyramids that have to be built from the bottom up. That is why I believe they should be treated separately by the time the pupil reaches the age of ten. To do this in no way prevents the child's freedom of activity. As there are few subjects in which the individual rate of progress varies so greatly, one pupil advancing very rapidly where another marks time, and also as every child goes through phases of greater appetite for these exact studies and phases of rest and assimilation, I believe the method used at Wickersdorf might well be put into general practice: each pupil works alone, taking up one problem at a time, and proceeding to the next one only when the difficulty of the preceding problem has been duly mastered. I have used this procedure for arithmetic and it proved thoroughly satisfactory. I used it also for the study of syntax, with the aid of little books of graduated exercises. The pupils took a great interest in them, even in matters which I myself—trained in the secondary schools which have bred a thorough dislike for grammar in my generation—should have found extremely irksome. How true it is that he who wants to work, who of his own

free will has decided to go ahead, finds the conquering of difficulties a very real pleasure.

This pleasure is conditioned, it will be noted, by the fact that the exercises must be strictly graduated. That is true of the acquisition of any technique—for this is a technique, as G. Kerschensteiner understands the word. Who wants the end wants the means, says the proverb. In the traditional school, no one took the trouble to find out whether the pupil wanted the end, and, indeed, he neither perceived it nor understood it; he was obliged on the contrary to see the means, the school technique. In the New School, the extremists in education claim that the pupil should be enabled freely to choose and to want the end to which his studies lead, but they give him no ladder with which to rise step by step to that end; and the pupil, free to follow his own caprices, sinks in the quicksand of his own inexperience, he feels his way, he is filled with enthusiasm, he becomes discouraged. That condition is not favorable to progress. In the Activity School, the clear-sighted teacher knows his pupils, he sees what end will interest them even before they themselves do, and he suggests it to them, taking heed not to impose it on them, and then shows them an exact technique, without which, at this age, there is no progress, and hence no pleasure.

It is evident that a period of exaggerated respect for pupil's spontaneity must be gone through with so that this absence of rule imposed from without may bring the pupils to realize sooner or later the need of imposing rules on themselves from within. This is a valuable process in science, but it has no value in education, at least in so far as it serves to bring about a thorough adaptation to the new régime, in a child accustomed to the old régime and already moulded by it. It is this brief period of relative anarchy which, in my *L'Autonomie des écoliers* (*Pupil Self-Government*), I designat-

ed by a term born in the trenches during the Great War,—the "no man's land." Briefly; where everyone is working spontaneously, the new-comer, unless his nature is fundamentally corrupted or he is too old, is not slow to fall in step with the others, to recover his real child nature, which was lying dormant in him, and, like the other children, to want the end and the means, whatever the difficulties the mastery of the means may present.

IX

Fifth Stage.—From thirteen to fifteen, the child, on the threshold of adolescence, enters the stage of *simple abstract interests*. Previously he passed from the world immediately perceptible to his senses, to the still concrete but to him invisible world of far away and long ago. Now he advances from the world of unattainable visibility to the invisible world of abstractions. Let us consider this point once more, in order to avoid all possibility of misunderstanding: the little child of seven to nine years, and even the still younger one of four to six years, are already able to transport themselves in imagination into other times and places, but they are not as yet able to make this experience the basis of centres of interest and of autonomous work. This ability appears at about the age of ten; it is at this period that many children begin to "devour" books of adventure.

The same situation holds for the period we are now considering. For a long time the child has been able to make abstractions from concrete data, to generalize, to deduce, to make conclusions from the visible to the invisible, to decide on the visible in terms of the invisible; let us say rather, he has been able to proceed from the concrete particular to the abstract general and *vice versa*. But the same proviso must be understood here: up to this time these abstractions could not have

served as spontaneous centres of interest. Abstraction has been used in daily life, as a simple means of seeing straighter in the world of things; henceforth, at times the child's life, his thought and action, will be at the service of abstraction as an end in itself. It is but a momentary and partial goal, an end in itself only in the child's own eyes; to us adults it appears as a means to a higher goal, the growth of the child's mental power.

Similarly, play is an end in itself to the player; but to the powers at work within us play is a means of increasing our strength or our skill.

Experiments made at the J.-J. Rousseau Institute tend to show that the average pupil begins to ask for rules and to take pleasure in using them at about eleven and one-half years of age: rules of grammar in language study, classifications and laws in natural science. These observations confirm my own completely. The teacher should not be in a great hurry to satisfy this need; particularly he should not too soon suppose it capable of existing spontaneously. These little plants which have just pushed above the surface are delicate; and we must not assume, merely because they have broken through the hull of the seed and have pierced the soil with their first roots, that nothing remains but to expose them to all sorts of bad weather. But toward thirteen years—sometimes sooner—the little tree is strong enough to shoot up freely.

So the adolescent from now on nibbles at abstractions. But he does not as yet care for them unless they are in close touch with concrete facts. Hence we may call this the period of empiricism. Complex abstract conceptions, those which are formed by combining other abstractions, often attract him intuitively, but they cannot as yet, in general, constitute autonomous centres for his interest and his spontaneous effort.

Let us note further that the evolution described

here is far from being universal. Many never reach the stage of abstract interests, even empirical abstract interests. Hence a selection must be made. It is already being made. The secondary schools include but a small percentage of the total number of children of that age in the country. This selection so far has scarcely been on a rational basis, it is true, for injudicious examinations and the economic status of the parents still play an undue part. Not until the day when not only a few of the pupils who reach this mental age, but all who reach it, are enabled to carry on their studies, shall we be able to speak of selection in the scientific sense of the term; and not till then will there be any real guarantee of social justice. Such is the goal, for example, of the foundation created at Geneva in 1920, which bears the title, "Social Justice in Education."

And what is to be done with the others, it will be asked. The others are destined for the manual trades, for agriculture, for commercial or industrial studies. They should continue to be given a general culture, certainly, but this culture should be adapted to their needs, to their tastes and interests. The field of knowledge opens into infinity before the eyes and the footsteps of him whose curiosity has not been stifled. There are individuals who all their lives will love biographies, accounts of voyages, anecdotic stories of animal life, simple explanations of modern inventions. Do not kill this liking by requiring them to deal in abstract thinking which holds no interest for them; on the contrary, cultivate this liking, nourish it, give these pupils what is best among the things they do appreciate. They will thus be enabled to escape from the mediocrity to which the lack of this culture would condemn them; and they are far better off as faithful patrons of the circulating library of popular science than they would be if they derived their sole intellectual stimulus from the hand-bills periodically

posted and distributed in the vicinity.

I shall not spend much time discussing the methods which should be used in the period of simple abstract interests, for the simple reason that they are, in general, the ones now in use in the schools. The only fault with these methods—or rather with the teachers who use them—is that they are applied too early, at the age of ten, or even earlier.

From now on, it is true, the child loves to observe, to make suppositions, to experiment, to draw conclusions. In this we perceive the embryonic stage of the scientific method, which may be reduced to these four successive steps: observation, hypothesis, verification, law. It is time now to make the child appreciate their value and their scope. Grammar and syntax in the study of languages, classification in the study of science, become sources of autonomous interest. The teacher should aim henceforth less to give knowledge than to inculcate the scientific method. Thus, in history, it is desirable to emphasize psychological and social relationships, the actions and reactions of the individual on society and of society on the individual. In geography, it is easy to note the influence of latitude and altitude on fauna and flora, these, together with mineral resources, conditioning industry and commerce and even the economic and political status of the inhabitants. In pupils of fourteen to fifteen years of age I have found a very real interest in these studies. The same sort of thing has been done in M. Jean Brunhea's *La géographie humaine* (The Human Geography) and *La géographie de la France* (The geography of France). The latter admirably illustrates these two important maxims: Knowledge of the history of one's country is indispensable to the man of action to-day, for the present is built up from the past and is a prolongation of it. Secondly the human will dominates, modifies, transforms, harmo-

nizes for its own ends, the conditions of life which nature offers; the character of a geographical region is determined by human thought and effort more than by the nature of the soil.

"Human progress," writes M. Jean Brunhea, "tends to change nature and the earth from a purely geographical state to a historical state (at once economic and political)."

Do not these principles, duly motivated and explained, constitute a powerful mainspring of interest for adolescents, and do they not provide a solid foundation for the studies in the field of social psychology and sociology which for some of them are to crown the edifice?

In the field of the sciences, the laboratory work will be no longer qualitative, but quantitative. Whether in psychology, physics, or chemistry, exact analysis and abstraction based on exact evidence will take precedence over the more empirical ideas of the preceding periods. And just as, in history and geography, the general principle of cause and effect gives form and meaning to the whole body of phenomena involved, so in the sciences the pupils may profitably investigate the developments which, from the brutish undifferentiation of a Thales, have led humanity from blind groping to hypotheses, from errors to new experiments, and on to the summits that science to-day has reached. The history of the sciences, illustrated by experiments which repeat those of great scientific discoverers, is, as I have indicated, the best means of guiding the adolescent mind through those steps which are at once logical and biological, rational and psychological.

Thus we keep returning in every subject to these central principles—of which the pupil is unconscious, but which the teacher must always have in mind, which must always guide his teaching and determine what

studies he will suggest in order to supply his pupils' appetite for work—relating to the growing power of the human mind, in the past (history), in the present (industry, commerce, pure and applied sciences, biology, psychology, sociology, philosophy) and in the future.

X

Sixth Stage.—It is not, indeed, until toward the age of sixteen that the adolescent begins spontaneously to enter the field of *complex abstract interests*, by which I mean philosophy, psychology, sociology, everything which relates to the great mysteries of nature and man, everything which reaches out toward the confines of human knowledge and there encounters metaphysics and religion. Not that the child has not previously been interested in these problems; very often his questions indicate that he is preoccupied with them. But he is not yet capable of doing real work in these fields, of organizing his information, of elaborating it, of carrying out a rational study of this degree of complexity. But are all young people capable of undertaking these tasks? Far be it from me to make this supposition! Just as there are children whose evolution stops after the third stage, so others stop after the fourth and barely touch upon the great philosophical and social problems empirically, incapable of coördinating apparently contradictory data so as to bring them into a still higher unity.

Still, whether or not the adolescent attains to the level of complex abstract interests, this is the age at which we must think of preparing him for the great parts he will have to play in life, a preparation that neither the universities with their specialized studies, nor practical life with no guidance whatever could give him. Most of the young men and women will some day be heads of families, educators of their children, econo-

mists, since almost every man has a budget to manage. Some of them will be artists, others philosophers. All will be citizens of their country and citizens of the world. The essential principles of civil law, of comparative legislation, of political economy, the great social problems, labor legislation, provision for the future, coöperation, savings accounts, the banking system, and what should be known as the care of one's estate, however modest,—all of this should be familiar to the young man or woman of eighteen years of age, ready to discontinue secondary school studies. These institutions should be treated in supplementary courses for apprentices and young workmen. To leave them, as is the case to-day, in ignorance of everything which will make them good citizens and good heads of families, is a public misfortune. If they are not to be slaves or parasites, the young man and the young woman must know how to live autonomously for their own good and for the good of society.

The past, studied in the original sources and in terms of the present, will provide the necessary counterbalance to the dreams of the future and to the generous utopias of adolescents, by showing them the bond which unites the present to the past, what we have inherited from our ancestors, what we must leave to our descendants, what must be endured without our being able to do anything to change it, what must be changed because to countenance it would lead to evil and suffering. For lack of sound psychological and moral foundations there is at present an irresolution, a disorganization among youth, which leads to the worst aberrations, cheapens precious energies, and tends to dilapidate the moral and social capital of mankind. There is danger in the house. A guard is sorely needed. It is for the Activity School to send him forth, and to bring us all a remedy for the evil.

CHAPTER VI

The Future of the Activity School

Nineteen centuries ago the apostle Peter had already cried out: "Nevertheless we, according to his promise, look for new heavens and a new earth, wherein dwelleth righteousness."

For us of the twentieth century, who have passed through the Great War, the aspiration toward a new era is more intense than ever before. For, more than ever, we feel that we are on the threshold of this new era. Not that we may hope to see war banished forever from our planet, unfortunately. Not that we are nearing the individual and social perfection which even the great materialistic evolutionist, Herbert Spencer, looked forward to. Mankind will grow toward the light; mankind will bow down to darkness; man himself will not change. Reason will always be a sun about which he will evolve without ever reaching it. But he has already long remarked this sun and felt its warmth upon him.

If a new era is to come, it will not come of itself. Upon us of to-day and of to-morrow devolves the care of making way for its coming. To accomplish this we need to see the end to be attained, and to will it. That is enough, did I say? Doubtless, the pessimists will reply, but power is also needed. So long as social chaos reigns, so long as there has not been established in the social organism a hierarchy of spiritual values, so long as the sensational and the imitative types, to speak with Dr. C. G. Jung, set the pace and dominate

society, clear-sighted intuitive men will be regarded as dreamers and utopians, and there will be nothing left for the rationals but to wear themselves out on a forum where the crowd does not listen to them, or to withdraw to their ivory tower.

Let us not be pessimists. Pessimists are super-optimists who would attain to-day a perfection reserved for to-morrow or the day after to-morrow; the very ineffectuality of their efforts drives them down into the ranks of the rebels. Neither let us belong to those sanctimonious optimists who want so little in the way of reform, whose confidence in man's power to evolve is so slight—these, these are the true pessimists—that they make no effort to lift at the wheel of progress and are content with what is.

Migratory birds, in order to pierce the blue, arrange themselves in a triangular pattern. The people I just spoke of are in the rear, they let themselves be carried along by the flock who make up the triangle. The leaders, those who go in front, those who cleave the air with their wings and fill their lungs with it, do not calculate the chances of the voyage; they advance. Like the ancient philosopher, they prove motion by walking. Let us do as they do.

On August 6, 1921, at Calais, a group representing several different countries, brought together by the First International Congress for New Education, established the "*Ligue Internationale pour l'Education Nouvelle*" (in English, *New Education Fellowship*; in German, *Internationaler Arbeitskreis für Erneuerung der Erziehung*).

The following principles were adopted by the *Ligue*:

"1. The essential goal of all education is to prepare the child to aim at and to realize in his own life the supremacy of the spirit; hence, whatever particular

points of view may be involved, education must strive to preserve and to increase spiritual energy in the child.

"2. It must respect the child's individuality, which can be developed only by a training that furthers the expression of the spiritual forces within him.

"3. The curriculum, and the apprenticeship to life generally, must allow free play to the child's innate interests, that is, to those that awaken spontaneously in him and find expression in various manual, intellectual, esthetic, social, and other activities.

"4. Every period has its own characteristics; hence individual and group discipline must be organized by the children themselves with the aid of their teachers, and must aim to strengthen the feeling of individual and social responsibility.

"5. Selfish competition must disappear from education and must be replaced by coöperation which teaches the child to put himself at the service of the group.

"6. Coeducation as understood by the *Ligue*, which means instruction and education in common, avoids treating both sexes identically, but implies such collaboration as will allow each sex freely to exercise a salutary influence on the other.

"7. New education fits the child to become not only a citizen capable of fulfilling his obligations to his near ones, to his country, and to all mankind, but also a human being conscious of his worth as man."

And these are the aims toward which the *Ligue* intends to work:

"1. The *Ligue* will endeavor generally to introduce its ideals into the school, and methods in harmony with these principles.

"2. It seeks to bring about closer coöperation among teachers at the various levels of the educational ladder on the one hand, and between parents and

teachers on the other.

"3. It proposes, through biennial congresses and the reviews it publishes, to create a bond amongst teachers of all countries who support its principles and are working for the same ends."

The establishment of this *Ligue* was a source of great satisfaction to the writer. For more than twenty-five years he has been working for the Activity School, and it has seemed to him at times that he was working alone. For those who were practically engaged in New School activities rarely had time to carry on scientific experiments and to bring together materials with objective value. On the other hand, the theorists were often content simply to repeat the verities of J.-J. Rousseau, to devote themselves to polemics against the traditional school; or, if they were laboratory psychologists, they accumulated figures resulting from their investigations, and constructed these learned bell-shaped curves which are the *ne plus ultra* of experimental psychology.

Now life demands something else. Life is action and reaction. What is really valuable, to the public school teacher as to the professor, is information based on the experience of practical men who are men of science as well. The teacher needs to know not only what he "ought" to do, but what he can do when he stands before, let us say, forty little individuals very different from one another, and what will best enable him to foster in them such wisdom and knowledge as they are capable of attaining. It was in response to this need that, in 1899, the writer established the *Bureau International des Ecoles Nouvelles* (International Bureau of New Schools), with the aim of "establishing relations of scientific mutual assistance among the various New Schools, of organizing the material which deals with them, and of appraising the psychological experiments

made in these laboratories of the education of the future." The material so gathered together comes from men with wide experience, at once bold and prudent, pioneers well aware of world-old truths that deserve recognition. The world of to-morrow will no longer remember them; and the school of day after to-morrow will never realize how much it owes to these pioneers: Cecil Reddie, J. H. Bradley, J. C. Hudson, Cecil Grant, in England; Edmond Demolins, Georges Bertier, Scott, Hawkins, Contou, in France; Hermann Lietz, Gustave Wyneken, Paul Geheeb, in Switzerland—to name only those with whom the *Bureau International des Ecoles Nouvelles* has kept up a regular and fruitful interchange of material.

The *Ligue Internationale pour l'Education Nouvelle* thus comes very opportunely. It is made up of those who are working enthusiastically for the reconstruction of the public school. It seeks not to reform but to transform the spirit of the school—the distinction is obvious. This new spirit it proclaims is the spirit of the new era, which, sooner or later, must inevitably bring, in place of the régime of authority, the régime of liberty. This latter will bring in, specifically, in place of the régime of bad authority, imposed from without, which works against the fundamental needs of the child's nature and which thus is not, for him, "tolerated authority," an order of good liberty, of "reasoned liberty." In this latter order the lower self is subordinated to the higher self and thus might better bear the name of spiritual liberation.

That is what we are working for in the *Ligue*. That is what the writer for more than twenty[1] years has been seeking to spread abroad and to bring to pass. For a long time he worked alone. So it is a source of great

[1] Thirty years, now—long life to him! (Editor).

satisfaction to him to see that public opinion is beginning to be aroused—not in the mass as yet, indeed! The conformists will not be aroused until "good manners" shall decree that children shall be given an education in harmony with the principles of the Activity School. But I find daily proof that clear-sighted parents are beginning to seek something different, something better than what the traditional school offers. And it can no longer be denied that even in educational circles a powerful wave of opinion is sweeping everyone toward a reconstruction of the school. That is what I mean by the future of the Activity School.

In this last chapter I wish to give evidence of this movement of reconstruction. I should like to bring home to my readers this irresistible force which, in all countries, each according to its own mode of response, is urging the human mind to seek something other and better than the traditional régime of authority.

But where shall we begin, how shall we proceed so as to forget no one? Let us give up all pretense of covering the subject completely. Let us be content to offer typical examples. Let us draw upon the material which has reached the *Bureau International des Ecoles Nouvelles* and let the rest go. Switzerland, Italy, England, and Germany have all contributed evidences of their work in the Activity School movement. Let us pass them in review.

In Switzerland it is but just to name in the front rank the J.-J. Rousseau Institute. Its founders, my learned colleagues and friends Dr. Edouard Claparède and Pierre Bovet, professors at the University of Geneva, have been at the helm for a long time. It was in 1912, to be exact, that our School of Educational Science came into being. Author of the well known *Psychologie de l'enfant*, (child psychology), in which, as Karl Groos

himself affirms, he was the first to show the educational applications, accessible to everyone, of the psychological theory of play, Dr. Claparède has not been satisfied merely to "pedagogize" by the pen, to borrow one of his own expressions. He established the Maison des Petits, a marvel of charm and grace, then the Maison des Grands, the promising existence of which was cut short by the crisis following the war. With M. Pierre Bovet, he has made the J.-J. Rousseau Institute the most original school in the field of education. There is no other, in fact, which, while it provides a very considerable amount of study and investigation in the field of pure experimental psychology, at the same time trains educators so thoroughly armed for life, so thoroughly prepared for clear-sighted and perspicacious teaching. Hence it has not lacked for appreciation at home and abroad. Tangible evidence of this admiration came in 1921 when, despite the severe economic crisis, funds came to it from everywhere, pennies from teachers themselves tried by the crisis following the war, and subventions from the state, to enable it to survive the stresses of the times.

The J.-J. Rousseau Institute—to which the writer is proud to have belonged from the first in the capacity of professor—is, in everybody's opinion, the European center of the Activity School movement, the center for fact-finding and fact-distributing. Its director, who, for French-speaking countries, coined, if not the idea, at least the word Activity School (Ecole active)—as I explained in the introduction—is indeed the best representative of that rare and precious synthesis, the man who combines scientific theory with original experimentation.

A group of people belonging to various international organizations created at Geneva, in 1924, an Ecole

Internationale[1] (International School), which has taken for educational patrons Dr. O. Decroly, Messrs. John Dewey and Carleton W. Washburne, and which has asked the writer to serve as technical adviser. On October 8, 1924, the *Journal de Genève* published an account of the programme of the Ecole Internationale, from which I quote the following:

It has occasioned some surprise that several "spiritual patrons" figure in our school programme, among them Dr. Decroly of Bruxelles, Messrs. John Dewey and Carleton W. Washburne in the United States, and others. Shall you then use several methods? we have been asked. No, I answered, we use only one, that of the Activity School, of which other methods are but aspects; essential aspects doubtless, but partial aspects. Just as science is one, so educational practice drawn from science is one also. It is built of common sense, intuition, and science. It is adapted to individual and group needs. It has a horror of cut-and-dried programmes, of cut-and-dried methods, of cut-and-dried schedules. Dr. Decroly, who numbers many friends amongst the primary teaching body of Geneva, has shown us what the dominant interests of children are. They are the same as those of primitive man: the need for food, for keeping warm (clothes, houses, heating), of self-protection against enemies of all kinds, of working together. These subjects are studies in themselves (observation, technology); they lead to associations of ideas in time (history) and space (geography); and they lead to manual or intellectual activities (oral or written expression.)

Mr. Carleton W. Washburne has attacked the school problem from another angle. Finding that in schools where there was a precise technique of teaching, no account was taken of the very different rates of progress of the children, and that, where the children's needs were considered, technique was lacking and more time was lost than even J.-J. Rousseau would have admitted and than Americans would tolerate, he worked out a series of problems or questions in every subject. Each child works individually; he advances at his own rate; the results are controlled periodically by very simple and ingenious tests. This system permits the teacher to have classes of forty pupils and still obtain

[1] I had the pleasure of visiting this school in 1925 and appreciating the excellent spirit inspiring its work. (Editor).

such results as have never been realized elsewhere.

But what is done about group work ? Here John Dewey's "project method" comes in. The results of Washburne's method are such that the minimum programme does not occupy more than two hours a day. All the rest of the time is given to a maximum programme which is not a programme: the choice of activities remains in fact largely or wholly with the pupils themselves. They take advantage of this liberty to prepare theatrical performances, to take up manual activities, to visit factories, to write stories, all of which develop individual capacities fully, but do not involve rigid school control. The energy the children throw into tasks which interest them runs over into the other activities which are more strictly scholastic, more arduous, more technical, and the results are evidently quite remarkable.

Thus our time at the *Ecole Internationale* is divided into three parts. The first part of the morning is given to individual work, the rest of the morning is given to group work, in which director of the school, applies Dr. Decroly's method of centers of interest as it has been applied also at Geneva since 1912 at the Maison des Petits in the manner I just described.

Finally, in the afternoon, the pupils take up free group or individual projects according to John Dewey's principles. It is perhaps the most important part of their work, that for which we adults need the most tact, and that from which we expect the most important, the most profound, and the most lasting results.

Reports on the *Ecole Internationale* have appeared in each issue of *Pour l'Ere nouvelle*, beginning with number 13. It is seeking its way through the inevitable difficulties involved in getting under way, making judicious use of the four following modes of activity :

1. Standardized individual work, which provides a technique, and covers a minimum programme ;

2. Organized group work, developing this minimum programme and leading to an active interchange between teachers and pupils and amongst the pupils themselves ;

3. Free individual work : cultivation of individual tastes, free projects for the class in organized group work, personal investigations ;

4. Finally, free group work: planning of stage productions, sales, expositions, excursions for gathering material, etc.

In this matter much is to be gained from the very suggestive book by Mr. Ellsworth Collings: *An Experiment with a Project Curriculum.*

Let us go from Switzerland to Italy. We shall find there an example worthy of imitation, that offered by S. Maurilio Salvoni, who is now director of the museum of the Instituto Carducci at Como. He founded in 1921 a "School for Cultivating Spontaneous Activity," which was unable to survive the economic crisis, but which deserves mention by virtue of the intrinsic value of the principles which served as its point of departure.

"This school," says a reliable description "aims to apply to education and to instruction the principles of affective and genetic psychology. It proposes to further the child's natural need for play in order to transform it into a spontaneous desire for useful activity; to cultivate, by means of the family régime, individual aptitudes, interest in regular studies, the esthetic sense, manual activity (which will find an important practical use in neatness, in order, and in the use of the materials of the course); thus to make possible a study of the aptitudes and talents of timid children who would otherwise themselves remain unaware of them. The school helps these pupils to a higher moral plane by having them follow the roads of observation and of experience, and by means of a life in common which instills in them a sense of responsibility, of solidarity, of disinterestedness, and accustoms them to know how to conduct themselves, how to make efficient and rapid use of reference books, of libraries, of museums, etc."

Here by way of confirmation are the most salient passages in the circular which S. Maurilio Salvoni him-

self wrote announcing the establishment of his little school at Gazzada, near Como.

CREATION OF A SCHOOL FOR CULTIVATING SPONTANEOUS ACTIVITY

Dedicated to all who feel the need of modernizing our systems of education and teaching

Many of us, painfully struck by the fact that our generation evinces little inner spiritual life, little personality in individual manifestations, and a great poverty of high motives and of social feelings, have resolved to work to the end that the next generation shall be better than ours; and many of us often dream of a radical reformation of our systems of education, in the home as well as in the school.

We want an education which not only protects good individual tendencies, but which emphasizes initiative, effort, and expression, as well as the creative powers; which develops independence both of judgment and of conduct; which creates among men a spirit of solidarity through a sense of mutual interdependence, through the need of understanding, the need of integration and coöperation among different personalities. We want the present chaos which is foundering in verbalism to be replaced by a true culture, consisting of a personal and critical systematization of experience, modest perhaps in extent but really lived and felt, and constituting a luminous unity of feeling, thought, and action.

There is more to be done. We want to translate these aspirations into actions. We wish to establish an institution which shall lead toward this reconstruction. But the official school, either as regards pupils or teachers, affords us no opportunity to do so; not as a result of the ill will or of the incapacity of their directors, but because of the exigencies of the old programmes to which they are obliged to submit, and because of the material conditions which thereby govern the life of the pupils and the activity of the teaching personnel.

We need an educational environment in which we may be enabled—forgetting for a time the immediate exigencies of our situation, and without being concerned with the possibility of applying all at once, and fully, the precepts of our new experience—to know the child when he is completely spontaneous, and to learn from his free responses in the environment in which he lives

and which moulds him hour after hour, what his deepest impulses are, what his temperament is, what his individual tendencies are, what his real needs are from the emotional and intellectual point of view, from year to year. We need an environment in which we can follow and understand the games of children and their apparently pointless activities, to see how the most serious occupations of the adult often derive from them, and to ascertain the fact that it is precisely these instinctive impulses of a lower order, completely neglected or blindly repressed in the present school, which, if they are skillfully cultivated, may lead to the highest human manifestations. We need, finally, an environment in which we may acquire a clear knowledge of the limits of our educative intervention and of how it may best be exercised so as not to interfere with the natural stages of the child's development; in which we may learn at the same time the art of stimulating personal effort, original talents, creative gifts in all their manifestations, as well as how to stimulate their development.

We shall in this way acquire faith in the inner resources of the human spirit, in the internal forces of progress, in the educational effectiveness of liberty, and we shall build up a precise technique of pedagogy and of teaching with the aid of our new experiments; we shall further base these experiments on the scientific modes of training which recently have thrown so much light on the nature of emotional and intellectual development, and we shall found them finally on the mental history of mankind.

The "School for Cultivating Spontaneous Activity" starts from the fundamental premise that the full and happy maturity of the child or adolescent—from the individual, as from the social point of view—depends on the freedom he is given in every stage to manifest all his inner energies. He must be able to express, under progressively higher forms, and in conformity with the natural laws of normal psychological development, his feelings, his emotions, his impulses, his instincts, his interests. In comparison with this satisfaction, which possesses very high *educative* value, in comparison with this happy maturing of inner powers, the importance of all the activities imposed on the child from without, with no regard to the spontaneous mental needs of his particular phase of development, is very slight or even negative. The school aims above all else:

—To enable the child to lead a varied and intense emotional life and to express what he has in him with complete liberty and spontaneity;

—To take as the starting point of its educative function all the

normal spontaneous expressions of every individuality whatever they may turn out to be, and thus to encourage the maximum development of initiative and of the spirit of invention and of creation under whatever form they may take;

—To proceed in such a way that all the teacher's work of instruction and training shall respect the motives, the mental needs or interests, natural to each phase of psychological development, and that all his technique of teaching shall be subject to the criteria of psychology;

—To interrelate as one body, in their normal relationships, all the child's activities of impression and expression;

—To be guided also in the classification and evaluation of experiences, that is, types of cultivation, provided at various stages, by criteria in conformity with the affective endowments and the intellectual interests proper to the various phases of development;

—To proceed in such a way that, by means of a historical basis in the instruction, adapted in content and method to the *mentality of the pupils, and by means of what their own personal* experience teaches them as to the growth in value of their own motives of action, the pupils shall be prepared to acquire a broad and healthy faith in the infinite possibilities of the progressive evolution of mankind, an impassioned will for outer and inner perfection, and a fervent and positive idealism.

The school will, to begin with, welcome a limited number of children of both sexes, for the most part between six and twelve years of age, on the days and at the hours when they are not in school. Most of their activity will be carried on out of doors and in accord with the inner working of a little community.

The meetings will have particularly the aim of stimulating the spontaneous activity of the pupils by means of readings, stereopticon views, etc.; these will alternate with hours of free individual manifestations involving both impression and expression, among which we shall mention especially drawing, modelling, the art of the theatre, oral composition, manual activities, technical invention, practical and domestic tasks, observation in the field of natural science, reading, and the viewing of pictures.

But Italy has more to show than mere hopefulness. The celebrated philosopher Gentile, when he came into office as Minister of Public Instruction, promulgated a Primary Teaching Law which is to no little extent inspired by his reform views. The law is very tra-

ditionalistic in many respects, but it opens the door to originality. It authorizes teachers, under the supervision of the inspectors, to carry on Activity School experiments, and thus to free themselves for a definite length of time from the official programmes. I know that many teachers are taking advantage of this liberty.

In France the Activity School movement is less evident, but quite as profound as elsewhere. It is especially the teaching circles which are active. As is well known, the French teacher has been, in general, since before the war, more revolutionary than any other, in the political field; he has been in short, the most socialistic. That there was, in his positivistic philosophical system and in his social theories, more of generosity than of practical wisdom; that he simplified things a little too much, that he believed man better than he is, that there was in him more of zeal for destroying the evil of yesterday than of coherent ideas for building the well-balanced and just society of to-morrow, I will not deny. But who will say how much this intrepid idealism has contributed to make youth virile, to temper the future *poilu*, and in short to bring victory? The greatness of soul which was revealed in the French soldier, whatever the rank he held and whatever elsewhere his social rank or his faith, speaks highly for the French school.

In spite of all this, as I have said, a powerful movement of opinion appears to be taking form in France at the present moment. Prepared by clear-sighted minds like Gustave le Bon, author of a very sound criticism of the traditionalistic régime, *La Psychologie de l'Education* (Psychology of Education); Paul Lacombe, Alfred Binet; Edmond Demolins, and George Bertier, who was the first to publish, in France, in his review *L'Education*, the theories of John Dewey, and who has for twenty-five years masterfully directed the Ecole des Roches—

the Activity School movement to-day is breaking forth into the light of day.

However, aside from progressive teachers whose aspirations have been crystallized by M. Zoretti in his bold book on *Education*, aside from a strong nucleus of secondary school teachers who are endeavouring to realize, under present conditions of legislation and of public opinion, the aspirations toward a more scientific pedagogy, there should be noted, in the very forefront, the movement called "Compagnons de l'Université nouvelle" (Companions of the New University).

The doctrines of the *Compagnons* deserve to be set forth and explained. Convinced that "in order for France to gain peace and repair her losses, she must work *more* and work *better*," they demand a *total reform*.

"All must be better instructed.—The best must be picked out of the crowd.—Equality of all in regard to instruction; distinctions based solely on common utility.—A school ladder: when we take the child, there is no child of the bourgeoisie or child of the people; there is simply a child.—Physical education by the natural method. Manual work, even for the students of the humanities, to restore its place in public esteem, to quicken our pupils' fingers while resting their brains, and also because it possesses an educative value.

"The work of education cannot be performed by moulding everyone alike; it is a work of art. What has too often driven our teaching toward formalism and automatism, is that we have wanted for economy's sake to treat the training of minds as we do the making of shells."

The impact of the new ideas is traceable in the ministerial documents also. This is what the document of 1923 said:—

"Better to leave the child in ignorance than to impose premature instruction upon him," say the official instructions; and here again: "instruction must be sustained by means of an incessant appeal to attention, to judgment, to the intellectual spontaneity of the pupil."—"It is, so to speak, nature alone who guides it"; it must develop the child's powers by "exercising them in a simple, spon-

taneous, almost instinctive manner." And there is mentioned the "active rôle" of the schoolboy, the "collection of materials and documents," the making of various objects; this method "which increases the effectiveness of the educational art tenfold" is "teaching by action"—2. Moral training : "self-government," "organized group," officers chosen by and among the pupils, officers of sanitation, officers of the coöperative bodies, etc.—3. The French language : let the children tell stories in their own way, permit them to choose freely their own subjects for writing. "Freehand drawing must have free writing as a corollary"; that will inspire in them the desire to write. "All our lessons, more than in the past, will call for the pupils' activity and for confidence in their liberty."—4. Geography through excursions.—5. Arithmetic starting with manual activities.—6. The sciences : exercises in observation on excursions. "A school museum is a little laboratory": school organizations will be formed for the purpose of establishing and enriching them.—7. Finally, drawing: "First principle, liberty. For the pupil, liberty of feeling and of interpretation. For the teacher, liberty of action, encouragement to initiative".—The good teacher must stimulate more than criticize, suggest more than correct, propose more than impose, adapt himself to his pupils' pace and capacities, in place of ruling them all uniformly in accordance with his own.

Let us cross the channel. In England also there is a subterranean force at work which little by little is leading the nation unawares toward the methods of the Activity School. Several pioneers have broken the ice. The Reddies, the Badleys, the Cecil Grants, have made an important place in their new schools for manual work, pupil self-government, and the cultivation of spontaneity. Let us consider in particular the *show work* and the *prize work* at Bedales : afternoons given to free work, as formerly with Pestalozzi ; obligation to work, but supervised liberty in the choice of work. Let us consider especially the magnificent example left by Sanderson of Oundle. Little known to the foreigner before his death, which came in 1922, just after he had delivered an address in London on "The Duty and Service of Science in the New Era,"

Sanderson is considered by many specialists as the greatest pioneer of the Activity School. An empiricist, possessed of great intuitive gifts, a man, above all, in the full sense of the word and to the deepest fibres of his being, Sanderson is remarkable for his conception of practical scientific work, for his organization of work in groups, and for his conception of the teaching of the history of civilization, which approaches Paul Otlet's idea, that of a temple of the work of man made up of a historical and geographical museum. My pen burns to quote whole pages of Sanderson, so wholly do they express the true spirits of the Activity School. But why spoil these pages for those who have not yet read H. G. Wells's book, *The Story of a Great Schoolmaster*. They should read the whole volume and meditate upon it. I will confine myself to reproducing here a letter which Mlle. Butts[1] addressed to me in response to my query whether Sanderson really deserved, as H. G. Wells thinks, to be considered as the greatest contemporary educator.

"What seems to me to make Sanderson an educator of the first rank and to justify Wells's opinion, is that he has grasped why and how scientific thought can transform the life of the school by animating it with a powerful creative spirit, and that he has foreseen the possibility of making the New School 'the centre of a complete reorganization of civilized life.'

"It is Sanderson who is the hero, Job Huss, of Wells's *The Undying Fire*. It is of him then that one of his pupils, an officer in the Great War, wrote: 'You made us think and feel that the past of the world was our own history; you made us feel that we were in one living story with the reindeer men and the Egyptian priests, with the soldiers of Cæsar

[1] She has translated Wells's book in French. (Editor).

and the alchemists of Spain; nothing was dead and nothing alien; you made discovery and civilization our adventure and the whole future our inheritance.

" '....when the peace comes and the new world begins, it will still be in the story for us, the day's work will still join on.

" 'That's the essence of Woldingstanton (*i.e.*, Oundle), that it puts you on the high road that goes on.....The whole value of Woldingstanton is.... that it makes him a player in a limitless team and one with the Creator.'

"At Oundle, the pupils were plunged into life; there was *nothing artificial* in the manual work, in the historical and other studies. 'The school must be in close touch with the life of the city,' said Sanderson, and he put this statement into practice.

"Do you believe that there are many schools which have their pupils participate in the productive and creative life of the country? At Oundle teaching is 'dynamic' and not 'static.'

" 'It is not easy in a school to keep science at a level where the creative instinct that is in it may have free course,' said Sanderson. *But he did it!* 'For science is continuous effort, change, progress, doubt, research.' And this spirit animated his school. And the aim of the school, to him, was real and effective service from the people as a whole.

"No one, it seems to me, has placed the school and the educator so high. See, for example, pages 137 to 141. The school really serving all mankind, becoming the centre, the animator of collective life, the crucible in which are elaborated new conceptions, that is the great ideal of Sanderson it seems to me."

In England, the pioneers may be divided into three groups :

1. Those who have founded, directed, and otherwise been concerned with new schools, private or public. The twenty-third issue of *The New Era* (July, 1925) contains a carefully revised list of fifty-three new schools, of which thirty-eight are boarding schools and twenty-six are day schools, several representing both types. In addition this list mentions fourteen schools of primary grade where the methods of individual work are applied, Miss Parkhurst's Dalton Plan, in most cases. That of Mr. A. J. Lynch, at Tottenham has confirmed me in my impression that the Dalton Plan, if it is not founded on an entirely new programme and adapted to the evolution of the interests of each period and of each psychological type, is a compromise measure. As to kindergartens, *The New Era* mentions seven applying the new methods. I have seen that of Miss Mackinder at Chelsea and I was delighted to learn with what joy and harmony these children of the people, poorest of the poor, work here with Miss Mackinder's educational games, which are very similar to those of Dr. Decroly. And if we add that the "scholastic" results, even in the opinion of the inspectors, are brilliant, we can but conclude once more that group teaching with very small children is a barbarous practice. The sooner it disappears the better.

2. The organization, *New Ideals in Education*, founded in 1914 by Messrs. Bertram Hawker and Edmund Holmes, has brought together every year except 1920 up to four hundred or more people, meeting at various vacation periods. The addresses presented have been published in a series of volumes of the greatest interest.

3. The English section of the *Ligue Internationale pour l'Education Nouvelle*, or *New Education Fellowship*, is one of the most active, as is proved by the

success of its review, *The New Era*, and the number of English men and women who attend the biennial congress of the *Ligue*.

In addition to these constituted bodies, there are, in England as elsewhere, free-lances of the Activity School. Of one of these I wish to speak in some detail, for he is both typical and unique: Mr. E. F. O'Neill, formerly a teacher at Blackburn, near Manchester, since 1920 head of the school at Kearsley, in Lancashire. The following notes were taken at the congress of the *New Ideals in Education*, at Cambridge, in August, 1919.

As Mr. O'Neill himself told us at the congress, he was born of poor working people. His childhood, in a slum, was wretched. His father was a drunkard. As a little boy his favourite distraction was trying to make grass grow between the flagstones in the yard where he spent his time. As an adolescent, he taught in a school as an uncertificated teacher; then he entered the training school for teachers. He explored the surrounding country more thoroughly than his books, and became engaged to one of his comrades at the school. After having passed a minimum of examinations Mr. O'Neill is now director of a primary school in a spinning-mill village, traversed by the ink-coloured river which flows down from Manchester. In this smoky village, Mr. O'Neill observed the children of Lancashire, dull, indolent, obstinate, often vicious; and, as he put the matter plainly at the congress: "Why accuse the sordid homes, the ugliness of the surroundings, the temptations of the street? Why not accuse the school? The child passes five hours every day at the school; that should be enough to give him an education that would transform the present life of the workers in an industrial village."

Conviction gives audacity; Mr. O'Neill dared. He violated the rules; he did not even respect the school furniture; to begin with, he rid his classrooms of the desks which encumbered them; better still, he made fire-wood of the desks. Reported to the authorities, he was visited by the inspector. But this inspector was broad-minded and conciliatory, and persuaded the county authorities to give *carte blanche* for two years to the energetic teacher so as to permit him to try out his system.

Mr. O'Neill began by completely reorganizing all the classes; in each one he put children of all ages, from six to fourteen years.

The older ones are responsible for the little ones. The teachers "preside," one to each classroom. Courses, lessons, in the traditional acceptance of the words, there is none; "the child," says Mr. O'Neill, "wants to learn; he wants to learn, not in your way, not in my way, but in his own way." No more "keeping busy," but the children know that at the end of each week they must have done a certain minimum amount of work in certain predetermined matters. They may do this work at any time during the week, anywhere in the school or in the school yard. Aside from this work, they may use their time as they see fit. The teachers are always accessible; pupils go to them when they please; the teachers give advice, suggest ideas, aid the children in overcoming difficulties. Sometimes the teachers make little talks, which are optional. Manual work holds an important place; the children make for themselves light furniture, desks, chairs, cabinets, which they may take home. They learn arithmetic by working out a graduated series of practical problems with the aid of various materials (scales, jars, cardboard money, foot-rules, cubes, etc.). As exercises in composition the children write little books, re-copy them, sew the pages themselves, paint pictures on the cover. The result is read and criticized by the group. There is a "book circle" at the school, where the children can read good books; they are encouraged to save their pennies so they can buy books of their own and build up a little library. This innovation has reacted on the parents, many of whom now read the books brought home by their children, and gladly spend a part of their princely salaries as spinning-mill operative for the purchase of new books.

The new school activity is not limited to this; the children raise chickens and rabbits, make gardens, cook (preferably in the director's office). A "parliament" is held once a week. They put on little plays, read verses, or compose them (the children of this school have a marked taste for poetry). One-half of the large central hall of the school is unoccupied, and is kept for dancing; the other half is taken up by tables made of the old blackboards, and covered with papers, reviews, books. One of the classrooms has been converted into a laboratory, another into a menagerie. In the part of the hall which is reserved for dancing there is a piano, and Mr. O'Neill plays it almost every afternoon. The children ask for their favourite pieces, and, when the music begins, they take off their clogs and stockings and begin to dance. The steps and the figures are of their own invention, and each one dances independently of his comrades. "They look," says Mr. O'Neill "like a flock of butterflies fluttering over the meadows."

Mrs. O'Neill, faithful comrade of her husband, helps him in all his work. It is too soon to speak of the results, for the new system has been in practice for less than three years. However, it is already evident that the pupils' writing is much better than it was formerly and that the general level of the compositions is above the average. What admits of no doubt is that the children love their school.

In addition to the pioneers who belong to the large organized movements mentioned above, there should be named, amongst the supporters of the Activity School in England, L. Haden Guest, author of *The New Education;* Norman MacMunn, of *The Child's Path to Freedom;* William Platt, of *The Joy of Education;* Cadwell Cook, of *The Play Way in Education;* and J. H. Simpson, of *An Adventure in Education.* These books are a mine of practical suggestions; and more than that, beyond the practical wisdom of a race of experimenters, one feels in them an optimism, a faith in the child, a frank and sane idealism which must achieve results.

For all this theory is soundly based on practice; that is what gives it its value. Around the review, *The New Era,* which is edited with rare ability and energy by Mrs. Beatrice Ensor, there are gathered not only writers, but practical and forward-looking experimenters as well. If one reads Mrs. Josephine Ransom's *Schools of Tomorrow in England,* or Miss Alice Woods's *Educational Experiments in England,* or the series of monographs edited by Mr. Ernest Young, *The New Era in Education,* he will be amazed at the magnificent vitality of the Activity School in England. The schools created by the "Theosophical Educational Trust", particularly the one established in the pretty garden-city of Letchworth, are real fields of experiment. The moral atmosphere there is thoroughly imbued with harmony, serenity, altruism, spontaneous and spontane-

ously good activity. Mrs. Ensor, who gave up the post of inspector of primary schools for the London County Council so as to devote herself entirely to this educational work, is certainly one of the most striking personalities connected with the Activity School, not only in England but in the whole world. To-day, in her magnificent school at Frensham Heights, aided by Miss Isabel B. King, she is without doubt realizing one of the most perfect educational works of art to be seen anywhere in the world. In the midst of all the material and moral ruin of Europe it is a seed sown, a living hope for the new era we look forward to and for which we are indefatigably working.

The *Ligue Internationale pour l'Education Nouvelle*, as I have stated, possesses three organs: *The New Era*, at London, *Pour l'Ere nouvelle*, at Paris, and *Das Werdende Zeitalter*, at Kohlbraben bei Vacha. The editor of this last review is Dr. Elisabeth Rotten, well-known for her indefatigable zeal in 1914 and 1915 in the aid of Belgian children; and she was the right arm, in Germany, of the International Committee of the Red Cross for aid and assistance of all kinds to English, French, and Belgian prisoners, and in particular to civil prisoners,—this anomaly, this monstrosity, I would say if all of it were not monstrous, of the last war. Author of an important doctor's thesis on Goethe and Plato, Fräulein Rotten personifies the idealism of the Activity School in Germany as Mrs. Beatrice Ensor does in England.

When the German office of the League of Nations was organized at Berlin, an educational section was established at the headquarters of the league. As long as it existed, Fräulein Rotten was its head. An interesting point in Germany is the fact that the revolution of 1918 sent her far ahead in political, social, and educational matters. The tendencies of educational

innovators were in large part embodied in the laws and regulations. Thus the struggle is not, as in Western Europe, between a handful of school reformers and the governments, but between the reformers, who have the law on their side, and the reactionaries, who by their attitude put themselves outside the law. Germany continues to present an interesting field of social experimentation.[1]

I wish to present two documents here which are symptomatic. One is an "appeal to coöperation and to understanding" which the Superintendent of Schools of Berlin, Herr Wilhelm Paulsen, addressed on February 25, 1921, "to teachers, parents, pupils, and friends of our schools." The other is the manifesto of the League of Radical School Reformers (in the etymological, not political sense of the word "radical").

Here is the first of these documents :

"In all fields, in artistic creation as in manual creation, we are getting away to-day from the traditional forms. He who triumphs to-day is no longer the man of reason but the man of deep feeling, of strong inclinations and instincts, which come in essence from the earth and reach out toward the infinite. Life demands life. The school must obey this imperative and take its place in the common progress of civilization.

"Why need we dispute among ourselves over what form to give it? Wherever youth finds itself united, it lives the school life which best suits it. It is our task to build this school. The school belongs to youth, it belongs to the parents, as it belongs to us teachers, whom the youth have inspired with en-

[1] Since this book was published, Germany has, of course, been through great political upheavals and the New Education has received a serious set-back in many directions. (Editor).

thusiasm, and who have won youth's confidence. However little we strip off the official in us, we shall in that way learn to hate mere theoretical disputation, foreign as that is to life.

"Why do we wrangle over the school conceived as a community? Whoever fights it is ignorant of its whole spirit. The moment our people find themselves grouped in a community, the destructive contrasts among them are transformed into a constructive force. The school must be the first manifestation of our firm will to live socially.

"Let us argue no more over religious questions. Religion is something which must be lived. The new man knows nothing of the wars of religion.

"That implies that we must respect each other and that no one shall attack his neighbor's convictions. We are for religion, but we know too that religious 'instruction' has shaken the intimate foundations of religious power. However, if any continue to believe that religious feeling can be taught, it will be possible in the future for him to have his child given a religious training.....

"All youth have a right to live a happy life in school, not to be overwhelmed by the subject-matter, not to be terrorized by the unnatural demands made by examinations.....

"The school appears to us to be transformed. Yesterday, when utilitarianism ruled, the school, devoted entirely to instruction, fulfilled its aim by using methods perfected and refined to the highest degree, methods which threatened to objectify and to mechanize everything human there was in us. Today, the misfortunes we have undergone have taught us that we cannot restore our spiritual and material forces save by liberating the creative forces in ourselves and in youth. Our duty is to proceed in such a way that

this liberation can take place.

"The New School is not a thing achieved; it cannot be ordered into existence by the authorities or by regulations. It must result from a movement of public opinion in which parents, teachers, and pupils participate. The state and the city can do no more than provide it the means to live and develop. It will thus arise by virtue of an inner necessity and will enable all the joyous and serious energies of our youth to develop. A current of vivifying energy will well up from the depths to find its expression in full and beautiful life in society.

"That is the true renovation, that is the revolution to which we all aspire."

And here are the guiding principles which Herr Wilhelm Paulsen proposes:

"*Essence of the School.* The school is not something alien to human society, a detached element, but a happy and living member of the whole body of institutions necessary to life. It is not merely an establishment for purposes of instruction or education, but rather the place where youth lives in harmony with the profound laws of its nature.

"*The Activity School.* The life of society is transformed and modified in terms of its economy. Material and spiritual production liberates, through infinitely varied actions and reactions, all the energies of all the members of that society. The school must obey this law. Work must make the man.

"The school must then be a place of work where an intelligent effort will be made to bring about an effective adaptation of the whole man to the needs of life, whether in the large city or in the country. In his own work the child must be made to realize the vast forces of production involved in the public economy; his work must teach him to conceive pro-

duction in manual terms.

"The school must stimulate the expansion of the child's creative energy in the fields of scientific research, of pure art, and of the industrial arts. There is no essential difference between his work and that of the academy or the shop. As a background for the creative work of the child, the school must freely cultivate the creative spiritual powers of the people.

"*The School Community.* In the society of the future, more richly developed from the economic and spiritual points of view, the school will be one with the agencies of work and of betterment. Life itself will flow through the school. To-day, the school must be brought to life. The child must fulfill his nature amidst communities where life and work are real. The child must be at the service of the community, and the community at the service of the child. The fundamental law governing the development of every personality must be fulfilled by means of the action and reaction of these two poles of energy : the individual and society.

"*The Liberated School.* The school must be the road which leads the child to find himself, not to find dogmas, aims, and programmes. Every *a priori* educational goal threatens to be transformed into lies and treason in the child. The school is not the instrument of ecclesiastical or political parties, but a means whereby life may express itself. Hence it cannot but be natural on sectarian and political questions, free of the insufferable yoke of a profession of faith.

"*The School Ladder.* The liberated school means the disappearance of separate schools for different social classes. A true community of the people recognizes no distinctions of class or fortune. Its school ladder is not the product of an intentional organization, but a spontaneous institution which extends from the

kindergarten to the university. It is the expression of the enlightened will, or public opinion.

"*Fundamental educational principle.* The thought which must guide and direct the school is that of the integrality of the child's life. Is this not the beginning of a human life? It must not then be disrupted, falsified, violated. The duty of the school is not to interrupt life, but to fulfill it.

"*Realization.* For the school to build up freely the type of organization it must have, we must from now on insist on the complete independence of school culture. The spirit of self-government must penetrate all phases of its work and infuse them with new life. The self-governing organizations override city and country and act independently of the paltry political authorities. The state protects their independence, but does not regulate them. The following measures must be taken :

"Every school must provide every resource for culture and growth which corresponds to the child's wealth of gifts and powers.

"All the schools needed in developing the gifts and the tastes of the pupils, and in preparing them for the universities, schools of art, and special schools, constitute a unity, a school community. There is no advantage in selecting pupils experimentally or in establishing schools for the more highly gifted; a well-planned school organization will exclude these means.

"There is no opposition between the family and the school community; they enrich, supplement, and complete each other. The community replaces the family when the latter dissolves of itself or cannot be maintained. Poor-houses, children's homes, orphanages, educational institutions, even prisons, are so many institutions to be transformed into communities which must aid, protect, and save."

Then follow details on the composition and the organization of the school councils.

"*Conclusion.* Organized in such a way as to develop and stimulate life, the schools constitute natural sources of its spiritual rejuvenescence. For life engenders life. Youth no longer lives isolated and unhappy on the edge of society; it penetrates to the very foundations and to every part of society."

If we reflect that these declarations are those not of a utopian reformer, far removed from possible realities in a world of beautiful dreams of the future, but of a public official called to his post wittingly by a majority of the citizens of a large city, we cannot but think that these might well be something new under the sun.

Before he was called to Berlin, Herr Wilhelm Paulsen was at Hamburg, where he saw the work of the famous school communities in which the Activity School principles, involving liberty of the children restricted solely by the liberty of others, and individual and group projects, are applied not only in the primary teaching, but also in the secondary stage, and that not merely with the concurrence of the parents, but on their express and imperious demand!

But here is still another factor which is irrefutable evidence that there exists beyond the Rhine a nucleus of resolute reformers, determined to fight to the finish, and to carry the masses with them: the *Bund Entschiedener Schulreformer*, and its energetic president, Professor Paul Oestreich. Feminist, pacifist, and school-reformer, he was, when the revolution came, the man of the hour. His hopes appeared to be realized all at once. But he was not slow to perceive that just as one does not put new wine in old bottles, so the new bottles of the revolutions would remain unsaleable goods if the wine they contained was

adulterated. He plunged again into the fight, more stubbornly than ever, to work to the end that the "content" of the German school—the teachers especially—should be worthy of the "container."

This idea of the school community was born in Germany about 1906, or at least was then first put into practice. Dr. H. Lietz's[1] *Land-Erziehungsheime* or new country schools each constituted a monarchical *Schulstatt*. Dr. Gustave Wyneken and Paul Geheeb then separated from him and founded the *Freie Schulgemeinde* at Wickersdorf; and then Paul Geheeb in turn founded his own school at Odenwald. But all this deserves more consideration than I can give it in this book.

We again meet with the idea of the school community in the following document issued by the League of Radical School Reformers.

"*Appeal to all school-masters and -mistresses, and parents who are aware of their responsibility in regard to youth and the future, and to all young people who realize their obligation to improve themselves and to become responsible for themselves.*"

The text is printed in two columns, one defining the abuses to be fought *against*, the other the reforms to be fought *for*. We give them here without this typographical artifice.

"We invite you to unite together:

"Against a civilization painfully kept alive by an outworn framework of thoughts and feelings which have passed out of use;—and for a culture to be built up out of the fullness of the present, based on the intimate relationship between work and the mind, and developed by means of community feel-

[1] Lietz has played a highly important part in Germany as a pioneer in the Activity School movement. (Editor).

ing, mutual aid, and coöperation.

"Against the spirit of militarism, against hatreds amongst peoples, races, and sects;—and for the dignity of man, respect for man, the dignity of peoples, respect for peoples; for brotherly thought and deed between man and man, and between nations.

"Against the misconception which under the guise of 'free play of forces' and 'struggle for existence' tolerates the brutal oppression of the weak by the strong, and against the state conceived as a coercive police power acting from without;—and for the popular community organized from within, whose building materials are mutual aid, the social will, and the original creative powers of the individual and of the group, and which builds up its form and order in terms of its own inner life.

"In consequence we declare:

"Against the old school of the social caste;—and for the true unified school which guarantees full liberty of development.

"Against the old rigidly systematized school which imposed its procedure on all the pupils;—and for the elastic school which stimulates human culture and the discovery of self by adapting itself to every individual through courses freely chosen beyond a given common minimum.

"Against the school where learning is mechanical and where the teacher merely gives instruction;—and for the living school, the Activity School which makes its pupils free and independent, for the community in which the youth, by contributing to material production, participate in the economic organization of society as a whole.

"Against the school which exerts a one-sided influence on the pupils and gives them a one-sided cultivation;—and for the school which constitutes a

community of life, in which co-education brings each sex under the influence of both sexes, in which every energy is exercised, physical power as well as artistic powers freely expressed, in which educative values are put to practical use, qualitatively and quantitatively, in the home, in the garden, and in the shop.

"Against the school of red-tapeism, of dead discipline and external authority;—and for the school conceived as a social institution, as a place where the physical and mental welfare of the children is cared for, as a place where experience is acquired, as a community formed of comrades who govern themselves, as a shop where bodily activity is exercised coöperatively in productive and creative work —the sole means of developing personality.

"Against the school, where, in contempt of the Constitution, obligatory religious instruction continues to be imposed;—and for the school of true religious feeling which is born of a free and devout influence and of the example of teachers who give themselves to the service of the spirit.

"In consequence :

"Against the school where the teacher is reduced to servitude and where higher powers have control;—and for the school where the spirit of mutual aid governs fellow-workers under the direction of leaders chosen by themselves.

"Against distinctions and the segregation of different classes of teachers, distinctions which encourage the vanity of rank;—and for the unity of the teaching body.

"Against the exclusive right to teach granted to self-styled specialists who have undergone examinations;—and for an appeal to the people for all educational talent, so that the school from the kindergarten to the university may be established and administered as a vast autonomous community for the

cultivation and education of the people.

"We invite you to join together to render the German people healthy and to reconstruct them by an education which at last is really founded on the spirit of Pestalozzi and Fichte, which shall educate youth by life and for life, through productive growth and through a morality lived as befits the members of a popular community.

"*Join the Bund Entschiedener Schulreformer!*"

This has not all remained in the theoretical stage. Almost everywhere in Germany, aside from the teachers of the old régime, who systematically interfere with the new regulations, there are those who do their best to apply the new spirit. Even beyond the boundaries of Germany, in Austria, particularly in Vienna, wonders are being performed which no one ten years ago would have believed possible. With regard to Vienna, I wish to give three proofs: first, the declarations of a Minister of State for Public Instruction—declarations which have been confirmed to me by several of our teachers in New Schools in Switzerland who have spent some time in Vienna since 1921; second, the praiseworthy work accomplished by the celebrated *Bundes Erziehungs Anstalten* of Vienna and Graz; and third, the method and the success of a teacher of art, Professor Cizek, as recorded in *L'Education.*

In the *Neue Freie Presse* for September 16, 1920, Herr Gloeckel, then Assistant Secretary of State, in an interview expressed himself as follows:

"After experiments conducted during the past year in various trial classes, we have agreed on the following reforms, applicable to the four or five lower classes of the primary schools.

"I. No schedule.—The morning will be given henceforth to a single subject taken from the imme-

diate surroundings of the pupil or from the actual world; for example, the present floods in Austria.

"The subjects will no longer be taught in separate water-tight compartments; thus history, natural history, the natural sciences, and geography are combined in a single idea: 'knowledge of the home and of life,' and all other school activities are grouped about the central subject, each in the degree to which it serves to enlighten it.

"The children are encouraged in objective creative expression, as embodied in concrete objects. There is no change of subject when the clock strikes. A lesson will be continued as long as the subject demands and as the attention and interest of the children continue lively.

"However, the number of hours a week given to each subject remains the same, except that these hours are not distributed as formerly. The teacher is free to choose the day and the hour which he will devote to any given subject.

"II. The schoolboy no longer has to remain seated passively and absorb the instruction which is presented to him. He must acquire his knowledge actively. But activity is not synonymous with manual work. Manual work is not properly a school subject; it belongs to the shop; we do not teach it in the primary school.

"The essential thing is the personal work of the pupil; and manual activity comes in wherever it is necessary and possible.

"If, for example, the railroad is to be the lesson for the day, children and teachers will go to the station. Excursions are very necessary so that the instruction may not become exclusively verbal."

Herr Gloeckel adds :

"Although the young teachers are wonderfully

prepared to follow the new instructions the older ones are not. However, they have not for that reason been discharged."

This, as I said, appeared in 1920. The experiment was just beginning, one of the most far-reaching Activity School experiments, conceived and carried out by a government, since it included all the primary schools of the country. In 1925 the municipal council of Vienna published a pamphlet of 36 pages entitled "Conclusions Concerning the Programme Applied in Classes I to V of the Austrian Public Primary Schools and Bearing on the Experiments Conducted during Four Years in the Popular Schools of Vienna."

All the points mentioned by Herr Otto Gloeckel are analyzed. And the testimony of the teachers and parents shows that the great majority of them are fully satisfied with the new régime. I have been able to verify this point in several cases by direct testimony. Even the parents, many of them, approve it, defend it to the last stand! Members of the bourgeoisie, hostile to what comes from the political left, had sulked at the "Red school"; to-day, most of them have ceased to see red and make no attempt to conceal their satisfaction. They have but one regret: they cannot become children again and begin their education all over in a school where life, and no longer mere verbalism, is held in honor.

The *Bunder Erziehungs Anstalten* (B. E. A.) are schools of secondary rank, reserved to the intellectual and moral élite among children, irrespective of the fortune of their parents. Old cadet schools have been transformed into Land-Erziehungsheime, on the model of those of Dr. Hermann Lietz in Germany. They shelter more than 1,500 children aged ten and over. There is no entrance examination, but practical tests are given for determining the children's degree of

intelligence. A third of the pupils are taught and supported gratuitously.

The experiments carried out and the successes obtained have been most praiseworthy. Everyone should read, in the works published by the Ministry of Public Instruction, what energy was put forth by a handful of idealists at grips with all the difficulties presented by youth still disorganized as a result of the recent war, and by a teaching body ill-prepared for its new task. Everything had to be done on the spur of the moment. Adult "educators" were named to head groups of thirty pupils; they took charge of the pupils' interests generally, rather than of formal instruction. Cheerful rooms, true family living-rooms, were organized for the various groups; playgrounds, swimming pools, shops, laboratories, were established by the pupils themselves. And it was demonstrated that much good work can be done with very little money —a modern and heroic way of proving that mind is independent of matter in so far as it knows how to dominate matter.

As to Professor Cizek, of the School of Arts and Trades at Vienna, he has given several expositions in Europe of what his pupils have freely produced. The characteristic of his Saturday afternoon and Sunday classes is the absence of coercion.

"Children of all ages and all classes are admitted to it; no one is compelled to attend; those who are interested continue to come, the others stay away. From 40 to 70 children are thus gathered together. They are given no systematic teaching, and there are neither copies nor models nor plaster casts in the shops where they work: nothing but a large quantity of attractive materials which they may use as they please. If they draw poorly, no one corrects them; if they ask

how to go about it to draw a certain subject, the teacher answers : 'I can't tell you, you must find out for yourself.' Criticism of work is made in the group, and the children become more and more interested in what their comrades produce."

When the children first start out, Professor Cizek encourages them to use coloured paper which they cut up, arrange, and combine to their liking and taste. "When the child thoroughly understands the technique of paper-cutting, he is allowed to puzzle out other materials. In a few years the children come to attain an extraordinary technique,"—and that, be it noted, in the time they "waste". They stand comparison with the artists who illustrate our art reviews. Water-colour, painting, wood-cuts and linoleum-cuts, embroidery, all work of that type, I have been assured, is of remarkable quality. Especially notable is this point: "Professor Cizek has observed that poor children make better things than rich children, their powers being less warped by memory and imitation."

We could continue this circular voyage. Europe is vast. And then there are Russia, the Orient, the Occident, the United States.....

I shall say nothing of Russia. Although it has pushed the ideal of the Activity School very high and very far—too high and too far, perhaps—what is taking place there is still too little known to serve as example —to be followed or shunned, as the results indicate. I have indeed recently had direct and trustworthy reports. Some are absolutely pessimistic, others are suspiciously optimistic, and still others lead us to the conclusion that everywhere there is great suffering due to famine, that there are instances here and there of complete anarchy, but that in some places activities of the very highest value are being carried out by gifted teachers.

I am awaiting more exact details on this last group.[1]

In the Orient, too, I am told, the idea of the Activity School is making progress. I refer the reader to the attractive and curious book by Mme. E. Pieczynska on the poet Rabindranath Tagore and his school at Shantiniketan. I am looking for materials from Japan which have not yet arrived.

As to the United States, I have told in my *Transformons l'Ecole* how highly I regard Angelo Patri, a great heart and a great friend of childhood. I have spoken elsewhere of the school at Fairhope. I call attention once more to the remarkable Bulletins published by the *Bureau of Educational Experiments*, 70 Fifth Avenue, New York. Number III, for example, entitled *The Play School*, contains articles by Caroline Pratt, principal of the school, and by Lucile C. Deming, representing the *Bureau of Educational Experiments*, which are models of their kind.

"The attempt in the Play School has been to place the children in an environment through which by experiment with that environment they may become self-educated." "The school is but a small part of the environment of the children who attend it. It should be regarded as a convenient laboratory, workshop, studio, furnished with all the necessary appliances. The school, however, does not depend upon these appliances for the impulse to use them, but rather upon the impetus which the child gets from his interests in outside things. The youngest children are taken on trips through the streets. The activities they see around them are interpreted, sometimes by workmen engaged in an operation which the children are watching and

[1] Since this was written many reliable accounts of educational work in Russia have appeared notably Mrs. King's book: "Changing Man."

sometimes by the teacher. The children in their seventh year are taken into workshops and factories and have an opportunity to observe the processes and discover their significance.....Toys and blocks and materials of construction such as work-benches and tools are provided for all ages at present represented in the school, that is, for children from 4 to 8 years old."

The *Progressive Education Association*, closely affiliated with the New Education Fellowship, which has published since 1924 a magnificent quarterly bulletin, the *Bureau of Educational Experiments* which we have just mentioned; the *Bureau of Educational Service* of Teachers College, Columbia University, the *International Institute of Teachers College*, Columbia University, are all moving every day closer to the ideal of the Activity School.

So far I have not spoken of the widespread kindergarten movement. I have alluded to that center of Montessorian life, the canton of Tessin in Switzerland. I should give at least a sketch of how the Montessori spirit is animating and transforming many kindergartens in France, a movement which is opposed, in rivalry of the best stamp, by that of the public kindergartens, which center about the review *L'Ecole maternelle*. To prune away what is too abstract in the strict Montessori method, to introduce further some of the Decroly games and especially household tasks and a closer contact with nature, such is the reform, rich in results, which the patience and the scientific clearsightedness of Mme. Philippi van Reesema have brought about.

What is to be concluded from the rapid survey we have just conducted together on the present tendencies in the educational field?

Our first conclusion must be that the future of the Activity School is anything but an empty dream. What is going on is undeniably something more than

mere sporadic manifestations due to a few gifted intuitive minds or—as the traditionalists think—to the illuminati. In the present case, the illumination is so widespread that no one is justified in treating it lightly. It is not impossible that this is the dawn of a new era.

The transformation now going on may in fact have an incalculable influence. Picture what the world of to-morrow would be if, on three or four seemingly insignificant points, the public schools of all countries of Europe and America were guided along the newly carved road! These points are:

1. The cultivation of the *constructive and creative spontaneity* of the child, which, through the stimulation of his initiative and the resultant joy in work, would enable him to attain to full self-realization, qualitatively and quantitatively, in conformity with his innate tendencies, and would make him a calm, strong, capable man, whatever type of vocational activity he takes up later—I would add, however mechanical, humble, banal it be, for he would know how to find elsewhere the compensations which are due to the best that is in him.

2. *The school adapted to individual differences*, made possible by the constantly improving diagnosis of psychological types. This diagnosis is easy enough when means are provided whereby the child's tendencies may manifest themselves freely, may take root, may lead to creative effort and so be distinguished from passing whims and caprices. It is essential, from about the age of ten years, or even sooner, as the use of the Montessori material shows, to offer the children precise techniques, and freely reward those who work at them successfully, by granting them further facilities for work at what they like best; but that is to be done only when they have duly proved, by tangible results, that they are capable of persevering effort in their chosen field of activity. The rest, those who have no particular in-

clination for anything, if there are any such, should continue to receive that minimum of general culture which is useful to every man. But, under the régime of the Activity School, I will wager that these negative personalities would be rare!

3. The *natural selection* of capacities which results naturally from the creative activity of the school adapted to individual differences. Vocational guidance would be facilitated; and there would be far better guarantee of stability and harmony in a world where one found, oftener than is the case to-day, *the right man in the right place*.

Still other points could be enumerated. These three would be enough to revolutionize the world. Starting point: the spontaneity of the *élan vital*; means: the school, which offers the children rungs by which to climb; end: each man in his place in the human economy, each man making the most of his duties as a man, each man, according to his powers, servitor of the spirit which works in the bosom of humanity.

In truth, there is no vision higher than that, more transplendent, more worthy of calling forth the joyous effort, the very sacrifice, of men of feeling.

But the problem is to find these men, to form them. In my little book on *L'Education dans la Famille*, (Education in the Family) I pointed out, as the basis of all progress, the education of parents by themselves. Here, I wish to conclude this book by showing what could be, what must be, the training of the teachers of the Activity School.

Lietz, the courageous pioneer of the New School in Germany, had high ambitions for the teacher. He wanted him to be a "complete man," which does not mean a perfect man—Diogenes himself, with his lantern, was not able to find one—but a man who, as his powers permit, tends to perfection, with patience, humility,

and courage. He wanted him to be poor, so that, beyond the minimum necessary for healthy living, he should keep his gaze above material interests. He wanted him to be pure, so that his energies would be intact, his vigour fresh, and his gaze direct. He wanted him to be courageous, so as to be able to put into the scales of reality all his idealism and all his love of humanity. He wanted him finally to be faithful to his duty, in the little things of everyday life as in the great ones, obeying the voice of his conscience, so that his pupils will learn also to obey the voice of Reason which speaks in them.

Mme. Montessori, for her part, sets a high ideal for the teacher.

He must "instead of words, learn silence; instead of teaching, observe; instead of clothing himself in a proud dignity which pretends to infallibility, clothe himself in humility."

Observation, patience, humility, those are the three qualities which will raise him above dogmatism, unreasonable exactions, and the pride "which is founded on the emptiness of vanity." It is the same spirit that M.-A. Jullien had already written in 1812 of the schoolmaster according to Pestalozzi:

"He does not make haste to instruct the children, nor to judge them, because he loves them as they are and knows how to put himself in harmony with them at every stage of their life."

He loves them. Love! There is the great lever which lifts man—and still more the child—above himself!

"How can success be attained in the school?" someone asked that warm defender of the Activity School, Mr. William Platt. "It is a prodigiously simple thing," he answers, "provided certain conditions are fulfilled. You must love the children with a real,

profound, and comprehensive love. It must be your joy to be with them, to know them, in school and out of school. You must not be merely their teacher or their leader; you must also be their confidant and friend. Do not set up your pretended dignity as an absurd barrier between yourself and them; if you have character, your dignity is sufficiently assured, without any formal distinctions being necessary. Love the children as long as they are worthy of your love, step by step, day by day; they were created for love and love alone enables them to be understood. They need it as a flower needs the sun. With it they reach health, beauty, happiness. Live with them, live for them, live in the joy of their presence. Dear children, inexpressibly dear!"

That, indeed, is a high and noble goal.

Who would maintain that that is an unrealizable utopia? To such a person I would say: Go and see! Go to the primary school, go to the secondary school, have the patience to get the teachers to talk. You will find hundreds, thousands of them, who will say to you: "That is my ideal. That has always been my ideal."

But then why do so many teachers have so little success? Why does it seem that so few of them are applying the principles proclaimed by the idealists and by themselves? The reason is that the present organization of the school paralyzes them. The school of to-day is bound by school regulations, by inspections, particularly by examinations. For fear the teacher will do more than the inevitable minimum of harm, he is prevented from doing anything but what is prescribed. How absurd is universal regulation! How blind is the simplistic procedure which expects to obtain favourable results by making schoolmasters cast all in the same mould, so that they in turn will train their schoolboys

uniformly. The mass is mere quantity. Education is quality or nothing.

The framework must then be changed. The new framework must be that of the Activity School, a school for the spontaneous activity of the child, based on his creative powers, manual and intellectual.

If we may believe Herr Wohlrab, who is one of the veterans of the Activity School movement in Germany, there is no need of special talent to teach according to the new method: a little skill and enthusiasm are sufficient. That generalization is too optimistic, in my opinion, but it proves one thing: once the teacher is carried into the great current, his work at the New School is anything but a burden. More effort at the first, less effort in the long run, especially less useless effort,—that declaration comes to me directly from the director of a New School which is a true Activity School.

The chief difficulty of this rôle, for the educator accustomed to yesterday's régime, is that it obliges him to get rid of the pedant in him. He is no longer the more or less absolute monarch. He stands *primus inter pares*, first in experience, in knowledge, but equal before truth and error, before good and evil. How many teachers believe themselves in duty bound to clothe themselves in borrowed authority, to impose it on the pupil, to act severely in case of "insubordination," and especially, under no conditions, to admit an error or even ignorance!—To observe the child, to awaken his curiosity, to wait until his interest makes him ask questions, to help him find the answer for himself if possible; to use few words, to bring many facts to bear, to demonstrate things, to have him observe sharply, to have him analyze, manipulate, experiment, construct, gather materials; to allow the child liberty of word and deed to the degree compatible, not with a certain

apparent order, but with earnest workmanship; to be patient until the child perceives the need for study in such and such a field; to avoid compulsion so as not to bring out these "defense reactions" which tend soon to inhibit every spontaneous progressive action; to be less a teacher and examiner than a midwife of souls, less a policeman than a "good judge" to whom the pupils go of their own accord; to have a soul rich in the right sort of activity, profound, original, always serene and sincere, to be himself,—that is the rôle of the modern educator.

"An educator," Elslander tells us in a generous page of his *Ecole nouvelle*, "must be simply a man. A man! Who can say what this word represents in the way of trials, of will, of love, of hope?"

Yes, it is men that are needed in the Activity School, men who have learned that progress is made of battles and victories, and who know how to arouse their pupils to a love for beautiful battles and to enthusiasm for great victories; victories over themselves, victories over ignorance and error, victories over the forces of social and moral dissolution.

Such men will also be the avowed enemies of empty verbalism. They will not teach their pupils the tricks of style, which have served their time; he will teach them to be sincere, to tell the truth, to speak frankly; and out of these three elements, in adolescents who have the substance for it, will be born true art. In science, they will show their pupils the vanity of lessons learned and recited from books: lessons give young people the illusion that they know something merely because they have retained words, sentences, and abstract formulas. Throughout all their teaching they will give pupils a liking for facts, for concrete things, for abstractions founded on realities; the science each one learns must be forged out of his own energetic work; it is better to

work slowly by oneself than to be "worked on" from outside.

The conviction grows that the traditional education is too exclusively verbal and intellectualistic. Let us put it back in the thick of life, let it become again what it was during thousands of years before pedagogues came in with their theories: a slow process of action and reaction between the individual and the world about him. Certainly, intelligence has a rôle to play there, and the written and spoken word too, but as a means to a higher end: the growth of the power of the spirit.

From physiology we learn that in the individual, between sensation coming from the outer world and acting from without inward, and reaction acting from within outward on this same external world, there are, on the one hand the affective elements of pleasure and pain, and on the other hand the intelligent reflection, which alone gives reaction its value as appropriate reaction. The same is true in psychology: the mind does not rise save by contact with other minds, by the richest and fullest experience of all the marvels which mental life has to offer. A complete education is one that takes account of sensation, of feeling, of intelligence, and of will. The child must not only ascertain, think, reflect—that alone is not enough!—but feel, rejoice and suffer, reflect and will. Further, he must will and carry out the willed act. By enabling the child as often as possible to carry out what he has put together and willed, the Activity School will achieve the education of his whole being. In so far as it finds the right potentialities in him, it will make him a complete man. The school which offers nothing but knowledge must disappear. In its place must come the school which teaches the child how to use the lever which has ever raised the world above itself—purposeful activity.

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